

VA FORM 08-6231

DESCRIPTION

DATE

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REGISTERED

PROFESSIONAL

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PF&A DESIGN

SYMBOLS AND ABBREVIATIONS Approved: Medical Center Director

SERVICE & UPGRADE Building Number OPERATING ROOMS Location HUNTINGTON, WV **Drawing Number** E0.01 Checked 10.31.2014 Dwg. **O94**of 178

Construction and Facilities Management **Department of**

Veterans Affairs

GENERAL NOTES AND CONDITIONS:

- THE CONTRACTOR WILL BE RESPONSIBLE FOR ENSURING THAT ALL RULES AND REGULATIONS, INCLUDING THOSE WHICH MAY BE ISSUED BY THE OWNER, ARE BEING OBSERVED, PARTICULARLY WORKPLACE SAFETY AND THE CONDUCT OF ALL THOSE EMPLOYED DIRECTLY AND INDIRECTLY BY HIM ON THE PREMISES, AND THE OWNER'S EMPLOYEES WHO MAY BE IMPACTED OR AFFECTED BY CONSTRUCTION ACTIVITIES. THE CONTRACTOR WILL INSTALL SIGNAGE, BARRIERS, AND OTHER MEANS TO PROVIDE WARNING AND PERSONNEL SAFETY. PLACEMENT OF THESE ITEMS WILL BE COORDINATED WITH THE OWNER AND HIS ONGOING OPERATIONS AND WILL PROMPTLY BE REVISED WHEN WORK IN A PARTICULAR AREA HAS BEEN COMPLETED.
- 1.1. DURING PERFORMANCE OF WORK, THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVISION AND MAINTENANCE OF WARNING SIGNS, LIGHT SIGNAL DEVICES, GUARD LIGHTS. BARRICADES, GUARD RAILS, FENCES AND OTHER DEVICES. APPROPRIATELY LOCATED ON AND AROUND THE JOB SITE WHICH GIVE PROPER AND UNDERSTANDABLE WARNING TO PERSONS WITH REGARD TO HAZARDOUS CONDITIONS, EQUIPMENT AND OPERATIONS BEING PERFORMED IN CONJUNCTION
- THIS INSTALLATION WILL CONFORM TO ALL CODES AND THE REQUIREMENTS OF FEDERAL AND STATE REGULATORY AGENCIES HAVING JURISDICTION. IN PARTICULAR, THE WORK WILL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE WEST VIRGINIA UNIFORM CONSTRUCTION CODE (UCC), INCLUDING ALL OF ITS APPLICABLE SUBCODES AND AMENDMENTS, INCLUDING, BUT NOT LIMITED TO THE FOLLOWING:
- INTERNATIONAL BUILDING CODE: 2012 ELECTRICAL: NATIONAL ELECTRIC CODE: NFPA 70 - 2011 SITE SPECIFIC: VA DESIGN GUIDE SEPTEMBER 2011
- ALL WORK WILL BE LAWFULLY EXECUTED IN A NEAT AND WORKMANLIKE MANNER AND WILL BE COMPLETED IN ACCORDANCE WITH THE GOVERNING CODES (ABOVE), INDUSTRY STANDARDS, AND IN CONFORMANCE WITH THE MANUFACTURERS RECOMMENDATIONS AND REQUIREMENTS.
- WORK UNDER THIS CONTRACT SHALL CONSIST OF THE CONTRACTOR PROVIDING ALL LABOR, MATERIALS, AND SERVICES, INCLUDING WORK NOT SPECIFICALLY SHOWN BUT REASONABLY IMPLIED. THIS SHALL INCLUDE CUTTING, PATCHING AND RESTORATION OF EXISTING SURFACES DAMAGED DURING THE CONSTRUCTION. CONTRACTOR SHALL ALSO PROVIDE ALL EQUIPMENT SHOWN OR SPECIFIED OR AN APPROVED EQUIVALENT. SUBSTITUTED EQUIPMENT OR MATERIALS SHALL NOT BE INSTALLED UNTIL GIVEN WRITTEN APPROVAL BY THE OWNER.
- EACH TRADE CONTRACTOR SHALL BE WHOLLY RESPONSIBLE FOR PROVIDING, INSTALLING, AND MAINTAINING ALL TEMPORARY POWER SOURCES AND ANY REQUIRED UTILITIES FOR ANY TEMPORARY MECHANICAL, PLUMBING, AND/OR ELECTRICAL EQUIPMENT OR SYSTEMS (REQUIRED BY THEIR INDIVIDUAL TRADES SCOPE OF WORK) DURING THE COURSE OF CONSTRUCTION AND PHASING/SEQUENCING OF WORK. THIS SHALL INCLUDE BUT NOT BE LIMITED TO THE INSTALLATION AND ROUTING OF: TEMPORARY FEEDERS, CONDUIT, TRANSFORMERS, ON-SITE GENERATOR PACKAGES, OVERCURRENT PROTECTION DEVICES, DISCONNECTS, CONNECTIONS AND DISCONNECTION OF EQUIPMENT, ETC. ALL ELECTRICAL WORK MUST BE PERFORMED BY A LICENSED ELECTRICIAN. REFER TO SPECIFICATIONS FOR ADDITIONAL INFORMATION.
- CONTRACTOR SHALL BE RESPONSIBLE FOR COSTS INCURRED FOR NONCOMPLIANCE WITH THESE CONTRACT DOCUMENTS. CONTRACTOR WILL NOT BE ALLOWED CHANGE ORDERS FOR PROBLEMS ARISING FROM NEGLECT OF PROVISIONS INCLUDED IN THESE
- MAINTAIN ORDERLY HOUSEKEEPING DURING CONSTRUCTION, AND UPON SUBSTANTIAL COMPLETION PERFORM FINAL CLEANUP. REMOVE CONSTRUCTION RUBBISH, SCAFFOLDING, EQUIPMENT, TEMPORARY PROTECTION, TEMPORARY FIELD STRUCTURES, AND OTHER MATERIALS OR EQUIPMENT THAT WAS REQUIRED IN CONNECTION WITH THE CONSTRUCTION. BUT NOT A PERMANENT PART THEREOF.
- THOSE PERFORMING WORK AS A CONTRACTOR MUST EXAMINE SUBSTRATES AND CONDITIONS UNDER WHICH THE WORK IS TO BE PERFORMED AND NOTIFY THE CONTRACTOR IN WRITING, OF CONDITIONS DETRIMENTAL TO THE PROPER AND TIMELY COMPLETION OF THE WORK. COMMENCEMENT OF WORK BY A TRADE ON A SURFACE OR CONSTRUCTION SHALL IMPLY ACCEPTANCE OF SUCH SURFACE OR CONSTRUCTION. DO NOT PROCEED WITH INSTALLATION UNTIL UNSATISFACTORY CONDITIONS HAVE BEEN CORRECTED.
- NOT USED.
- 10. CONTRACTOR SHALL SUBMIT SHOP DRAWINGS AND MANUFACTURERS DATA SHEETS ON ALL EQUIPMENT AND MATERIALS SPECIFIED ON DRAWINGS FOR APPROVAL BY OWNER OR AGENT FOR THE OWNER. THESE DRAWINGS OR SHEETS SHALL CONTAIN ALL NECESSARY DATA, I.E., MANUFACTURER, CATALOG NUMBER, SIZE, DIMENSIONS, CAPACITY. WIRING DETAILS AND ALL OTHER ENGINEERING DATA AND DETAILS NECESSARY FOR COMPLETE CLARITY AND INSTALLATION.
- THE CONTRACTOR SHALL KEEP ONE SET OF THE LATEST ISSUE OF DRAWINGS WHICH SHALL REFLECT THE ACTUAL INSTALLED CONDITIONS AND CONNECTIONS OF ALL EQUIPMENT AND DEVICES. THE CONTRACTOR SHALL PROVIDE COPIES OF ALL MAINTENANCE INFORMATION AND INSTRUCTIONS RECEIVED WITH EQUIPMENT AND SYSTEMS. ALL "AS-BUILT" DRAWINGS AND MISCELLANEOUS INFORMATION SHALL BE GIVEN TO THE OWNER AND ENGINEER AT COMPLETION OF WORK. THE CONTRACTOR SHALL GUARANTEE ALL MATERIAL AND LABOR TO BE FREE FROM DEFECTS FOR A ONE YEAR PERIOD FROM THE TIME OF OWNER ACCEPTANCE. ANY DEFECTS OCCURRING DURING THIS PERIOD SHALL BE CORRECTED BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER.
- CONTRACTOR IS TO PROVIDE ALL REQUIRED SCAFFOLDING, LADDERS, RIGGING, HOISTING AND ALL OTHER EQUIPMENT REQUIRED FOR THE INSTALLATION OF THEIR
- 13. ESTABLISH PASSAGE CLEARANCES REQUIRED TO DELIVER, INSTALL AND ERECT ALL REQUIRE EQUIPMENT. IF STRUCTURES, EQUIPMENT AND SYSTEMS MUST BE ALTERED TO PROVIDE PASSAGE OF EQUIPMENT, THE CONTRACTOR SHALL RESTORE STRUCTURES, EQUIPMENT AND SYSTEMS TO THEIR ORIGINAL CONDITION AT THE CONTRACTOR'S EXPENSE; INCLUDING REMOVING AND REPLACEMENT OF ALL CEILING AS REQUIRED TO COMPLETE THE WORK.

ELECTRICAL WORK - DEMOLITION NOTES:

- PROVIDE DEMOLITION OF EXISTING ELECTRICAL, LIGHTING, COMMUNICATIONS, TELE/DATA, AND SECURITY EQUIPMENT, DEVICES, CABLING AND CONDUIT UNLESS NOTED
- REMOVE ABANDONED CONDUIT AND WIRING INCLUDING EXPOSED AND THOSE ABOVE CEILINGS. ABANDON CONCEALED CONDUITS IN PLACE WHERE CONCEALMENT DOES NOT AFFECT OTHER DEMOLITION OR NEW WORK. CUT AND CAP AT WALL AND/ OR FLOOR LEVEL. COORDINATE WITH GENERAL DEMOLITION.
- REMOVE BOXES, CONDUITS, AND WIRING IN WALLS, FLOORS AND CEILINGS SCHEDULED TO BE DEMOLISHED. COORDINATE LOCATIONS WITH GENERAL DEMOLITION.
- COORDINATE DEVICES TO BE SALVAGED AND REUSED BY OWNER PRIOR TO DEMOLITION. TURN OVER ALL SUCH DEVICES TO OWNER IN ORIGINAL CONDITION. DISPOSAL OF EQUIPMENT NOT TO BE SALVAGED IS RESPONSIBILITY OF ELECTRICAL CONTRACTOR.
- CONTRACTOR SHALL PATCH WALLS, FLOORS, AND CEILINGS THAT ARE EXISTING TO REMAIN AND HAVE BEEN AFFECTED BY ELECTRICAL DEMOLITION WORK TO MATCH SURROUNDING MATERIALS. SURFACES SHALL BE PREPARED FOR PAINTING BY GENERAL CONTRACTOR.
- WHERE EQUIPMENT IS TO BE RELOCATED OR DEMOLISHED, ELECTRICAL CONTRACTOR SHALL DISCONNECT AND REMOVE WIRING AND CONDUIT BACK TO SOURCE UNLESS OTHERWISE NOTED. COORDINATE ALL SUCH DEMOLITION WITH ASSOCIATED TRADES.
- CONTRACTOR SHALL VISIT THE SITE PRIOR TO BID TO VERIFY THE SCOPE OF DEMOLITION.

DESCRIPTION

ALL NURSE CALL EQUIPMENT MADE AVAILABLE DURING THE PHASED DEMOLITION, SHALL BE RETURNED TO THE OWNER FOR REUSE.

CONSULTANTS:

DATE

GENERAL ELECTRICAL NOTES:

- 1. ALL ELECTRICAL WORK SHALL BE COORDINATED WITH THE CONSTRUCTION MANAGER AND ALL OTHER DISCIPLINES INVOLVED IN THIS PROJECT.
- 1.1. CONTRACTOR SHALL REVIEW ALL TRADES' CONTRACT DOCUMENTS AND APPLICABLE SHOP DRAWINGS TO DETERMINE SPECIFIC MOUNTING LOCATIONS FOR ELECTRICAL EQUIPMENT.
- 1.2. VERIFY EXACT LOCATIONS AND MOUNTING OF ALL LIGHT FIXTURES, SWITCHES, RECEPTACLES, OUTLETS, FIRE ALARM DEVICES, VOICE/DATA DEVICES AND OTHER EQUIPMENT WITH ARCHITECTURAL DRAWINGS AND IN THE FIELD PRIOR TO ROUGH-IN. IN CENTERING OUTLETS AND LOCATION BOXES, ALLOW FOR OVERHEAD PIPES, DUCTS AND MECHANICAL EQUIPMENT VARIATIONS IN FIREPROOFING AND PLASTERING, WINDOW AND DOOR TRIM, PANELING, HUNG CEILINGS AND THE LIKE, AND CORRECT ANY INACCURACY RESULTING FROM FAILURE TO DO SO WITHOUT EXPENSE TO OWNER.
- 1.3. LOCATIONS INDICATED FOR LOCAL WALL SWITCHES ARE SUBJECT TO MODIFICATIONS AT OR NEAR DOORS. COORDINATE WITH ARCHITECTURAL AND/OR ENGINEERING PLANS AND INSTALL SWITCH ON SIDE OPPOSITE HINGE. VERIFY FINAL HINGE LOCATIONS IN FIELD PRIOR TO SWITCH OUTLET INSTALLATION.
- THE CONDUITS SHOWN ON THESE DRAWINGS ARE DIAGRAMMATIC IN NATURE, THEY SHOW THE GENERAL ARRANGEMENT AND SIZE OF THE CONDUITS. THEY ARE NOT INTENDED TO SHOW EVERY OFFSET OR INTERFERENCE THAT MAY BE ENCOUNTERED CONTRACTOR IS RESPONSIBLE FOR ROUTING ALL CONDUIT IN THE MOST EFFICIENT MANNER IN ACCORDANCE WITH PROJECT SPECIFICATIONS.
- 3. ALL CONTRACTOR SUPPLIED MATERIALS SHALL BE NEW AND UL APPROVED (OR
- 4. ALL EQUIPMENT SHALL BE INSTALLED IN A NEAT AND WORKMANLIKE MANNER, RECTILINEAR TO BUILDING STRUCTURE. HORIZONTAL OR CROSS RUNS IN PARTITIONS AND WALLS NOT PERMITTED.
- 5. UNLESS OTHERWISE STATED, ALL ABOVE GROUND WIRING SHALL BE IN CONDUIT, 3/4 INCH MINIMUM SIZE FOR ELECTRIC SERVICES. ALL CONDUIT BENDS SHALL BE OF THE LONG RADIUS TYPE. ALL OUTDOOR WIRING SHALL BE IN CONDUIT, 3/4 INCH MINIMUM SIZE. ALL MOTORS AND TRANSFORMERS SHALL HAVE FLEXIBLE CONNECTIONS TO MINIMIZE VIBRATION. 1/2 INCH CONDUIT IS ACCEPTABLE FOR SWITCH LEGS AND TIGHT WALL SITUATIONS. REFER TO ELECTRICAL SPECIFICATIONS FOR ADDITIONAL
- 6. ALL WIRING SHALL BE RUN CONCEALED IN CONDUIT UNLESS SPECIFIED OTHERWISE.
- 7. CONTRACTOR SHALL USE TRAPEZE TO SUPPORT MULTIPLE CONDUITS FROM BUILDING
- OR AT RIGHT ANGLES TO WALLS.
- 9. ALL CONDUIT INSTALLATIONS CROSSING EXPANSION JOINTS SHALL HAVE EXPANSION OR EXPANSION/DEFLECTION TYPE FITTINGS AS REQUIRED. NOTE: FOR THE EXACT LOCATIONS OF EXPANSION JOINTS, SEE OWNER FOR EXISTING STRUCTURAL DRAWINGS.
- 10. ALL UNDERGROUND CONDUITS SHALL BE SEALED TO PREVENT THE ENTRY OF WATER OR GASES.
- NOT REQUIRED. NO RACEWAY WITHIN 3 IN. OF STEAM OR HOT WATER PIPES, OR APPLIANCES, EXCEPT CROSSINGS WHERE RACEWAY SHALL BE AT LEAST 1 IN. FROM
- 12. FURNISH PULL STRING IN EACH RACEWAY RUN OVER 10 FT IN WHICH WIRING IS NOT
- 13. CUT STEEL CONDUIT ENDS SQUARE, REAM SMOOTH, PAINT MALE THREADS OF FIELD THREADED CONDUIT WITH GRAPHITE BASE PIPE COMPOUND. DRAW UP TIGHT WITH CONDUIT COUPLINGS.
- 15. GROUNDING SHALL BE INSTALLED IN ACCORDANCE WITH THE NATIONAL ELECTRICAL CODE REGARDING ELECTRODE, GROUNDING AND BONDING REQUIREMENTS FOR SERVICE, EQUIPMENT AND ENCLOSURES. ALL EQUIPMENT SHALL BE PROVIDED WITH A SEPARATE GROUNDING CONDUCTOR.
- 16. CONNECT CONDUIT TO MOTOR CONDUIT TERMINAL BOXES WITH FLEXIBLE CONDUIT (MINIMUM 18 IN. LENGTH AND 50% SLACK). DO NOT TERMINATE IN OR FASTEN
- 17. PROVIDE SEPARATE RACEWAYS FOR CONDUCTORS OF NORMAL AND EMERGENCY CIRCUITS. IN COMMON BOXES, PROVIDE BARRIERS BETWEEN EMERGENCY AND NORMAL
- 18. LEAVE WIRE SUFFICIENTLY LONG TO PERMIT MAKING FINAL CONNECTIONS.
- CERTIFY IN WRITING AND REQUEST PERMISSION FOR OVERLAP COLOR TAPING OF CONDUCTORS (MINIMUM LENGTH 6") IN ACCESSIBLE LOCATIONS. COLOR CODING. ONCE SELECTED, MUST BE USED CONSISTENTLY FOR THE ENTIRE PROJECT.
- 22. ALL SWITCHES SHALL BE MOUNTED AT 4'-6" ABOVE THE TOP OF FINISHED FLOOR, UNLESS OTHERWISE NOTED. ALL RECEPTACLES SHALL BE MOUNTED AT 18" ABOVE THE TOP OF FINISHED FLOOR, UNLESS OTHERWISE NOTED.
- PULLING OF WIRE AND COORDINATE LOCATIONS WITH OTHER TRADES.
- 24. FOR EMPTY RACEWAY RUNS, PROVIDE PULL BOXES EVERY 100FT AND AS INDICATED.
- 25. JUNCTION AND PULL BOXES: LOCATE GENERALLY NOT EXPOSED IN FINISHED SPACES. WHERE NECESSARY, REROUTE CONDUITS OR MAKE OTHER ARRANGEMENTS FOR CONCEALMENT. COVERS OF JUNCTION AND PULL BOXES SHALL BE ACCESSIBLE.
- REQUIREMENTS WITH MECHANICAL CONTRACTOR PRIOR TO ROUGH-IN. PROVIDE ADDITIONAL 120V/10 CONTROL CIRCUITS (VIA 2#12+1#12G. IN 3/4"C.) FROM NEAREST, SPARE 20A/1P CIRCUIT BREAKER(S) IN 208V ELECTRICAL PANEL HAVING SUFFICIENT SPARE AMPERAGE CAPACITY. PROVIDE NEW CIRCUIT BREAKER(S) AS REQUIRED. PROVIDE ADDITIONAL CONNECTIONS TO LOW VOLTAGE TRANSFORMERS (PROVIDED BY CONTROLS CONTRACTOR).
- 29. FIRESTOP SHALL BE INSTALLED WHENEVER WIRING OR RACEWAYS CROSS FIRE RATED WALL. PANELBOARDS, DISCONNECTS, AUTOMATIC TRANSFER SWITCHES, ETC., SHALL BE
- PANELS SHALL HAVE PERMANENT DIRECTORIES. CIRCUIT CHANGES SHALL BE REFLECTED ON "AS BUILT" DRAWINGS.
- 31. ALL SURFACE MOUNTED PANELS AND PANELBOARDS INSTALLED ON THE INSIDE FACE OF EXTERIOR WALLS, ABOVE GRADE OR IN OTHER LOCATIONS CONSIDERED AS DAMP, SHALL BE MOUNTED SO AS TO MAINTAIN A 1/4" AIR SPACE BETWEEN THE ENCLOSURE AND THE FACE OF THE WALL.

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GENERAL ELECTRICAL NOTES (CONT.):

- 32. ALL NEW ELECTRICAL PANELS SHALL BE LOCKABLE. PROVIDE OWNER WITH TWO (2)
- 33. EXACT LOCATION OF MECHANICAL EQUIPMENT THAT REQUIRE ELECTRICAL CONNECTIONS ARE SHOWN ON THE MECHANICAL DRAWINGS.
- 34. ALL DEVICES SHALL BE ADEQUATELY IDENTIFIED WITH PERMANENT LABELS OR TAGS.
- WIRING SHALL BE IDENTIFIED AS TO PHASING AND CONDUCTOR IDENTIFICATION. 35. CONDUIT HOMERUNS SHOWN ON THE DRAWING WITH MORE THAN 3 CURRENT CARRYING CONDUCTORS ARE SHOWN DIAGRAMMATICALLY. CONTRACTOR SHALL NOT

INSTALL MORE THAN 3 CURRENT CARRYING CONDUCTORS IN A RACEWAY UNLESS

36. EACH BRANCH CIRCUIT HOMERUN SHALL HAVE NO MORE THAN THREE CIRCUITS. EACH BRANCH CIRCUIT HOMERUN SHALL HAVE A SEPARATE GREEN INSULATED

DONE SO STRICTLY BY THE NATIONAL ELECTRIC CODE.

- EQUIPMENT GROUNDING CONDUCTOR. 37. MULTI-GANG BACKBOXES FOR DIFFERENT VOLTAGES AND TYPES OF EMERGENCY AND
- NORMAL BRANCH WIRING DEVICES SHALL HAVE DIVIDERS BETWEEN DEVICES. 38. ALL TEMPORARY WIRING, LIGHTING AND POWER CIRCUITS AND DEVICES SHALL BE
- INSTALLED TO MEET THE LATEST REQUIREMENTS OF THE NATIONAL ELECTRICAL CODE. LOCAL, STATE AND FEDERAL REQUIREMENTS FOR SUCH TEMPORARY INSTALLATION. 39. THE ELECTRICAL CONTRACTOR SHALL ENSURE THAT RECEPTACLES USED FOR HAND

TOOLS AND OTHER MISCELLANEOUS EQUIPMENT SHALL BE INSTALLED WITH GROUND

FAULT INTERRUPTER OR OTHER APPROVED AND RECOGNIZED INTERRUPTING SENSORS.

- 40. ALL OPENINGS SHALL BE SEALED UPON COMPLETION OF INSTALLATION TO PREVENT THE SPREAD OF SMOKE AND FIRE THROUGH OPENINGS. OPENINGS SHALL ALSO BE SEALED TO PREVENT WATER SEEPAGE WHERE APPLICABLE. ALL OPENINGS SHALL BE COORDINATED WITH OTHER CRAFTS TO PREVENT INTERFERENCE AND OBSTRUCTION. PENETRATIONS THROUGH FIRE WALLS MUST BE MADE BY AN APPROVED THROUGH PENETRATION FIRESTOP SYSTEM.
- 41. THE COMPLETE INSTALLATION SHALL BE TESTED AT COMPLETION OF WORK, TO BE FREE OF GROUNDS AND SHORT CIRCUITS CONDITIONS. ALL INTERLOCK CIRCUITS SHALL BE TESTED TO VERIFY CORRECT OPERATION OF EACH DEVICE. ALL ROTATING EQUIPMENT SHALL BE JOGGED TO VERIFY CORRECT ROTATION BEFORE PERMANENTLY
- 42. CONTRACTOR SHALL COORDINATE AND SCHEDULE ALL WORK AND SHUTDOWNS OF EQUIPMENT WITH FACILITY.
- 43. EXCAVATION FOR UNDERSLAB OR UNDERGROUND INSTALLATION OF CONDUITS SHALL BE APPROACHED WITH EXTREME CAUTION SO AS NOT TO DAMAGE EXISTING UNDERGROUND PIPING, WIRING AND CONDUITS.
- 44. ELECTRICAL CONTRACTOR SHALL PROVIDE CONSTRUCTION MANAGER/GENERAL CONTRACTOR A SURFACE PENETRATING RADAR SURVEY FOR THE PURPOSE OF LOCATING ALL UNDERGROUND (OR IN-SLAB) CONDUITS, PIPING, UTILITIES, STRUCTURAL MEMBERS, ETC. IN ALL AREAS WHERE SLAB CUTTING MAY OCCUR (FOR THE PURPOSES OF ELECTRICAL WORK REQUIRED). SURVEY MUST BE COMPLETED TWO WEEKS PRIOR TO CUTTING OF ANY SLAB. THE CONTRACTOR SHALL ASSUME THE RESPONSIBILITY (AND ALL ASSOCIATED COSTS) OF REPAIRING AND/OR REPLACING ANY SYSTEMS DAMAGED BY THE SLAB CUTTING PROCEDURES, WHEN PREVENTATIVE MEASURES WERE NOT CONSIDERED OR UTILIZED. COST FOR SURVEY(S) SHALL BE SUBMITTED AS A SEPARATE LINE ITEM PRICE (WHEN APPLICABLE).
- 45. THE ELECTRICAL CONTRACTOR IS RESPONSIBLE FOR VERIFYING VOLTAGE, PHASE, MCA, MOCP, REQUIRED FOR ALL EQUIPMENT PROVIDED BY OTHER CONTRACTORS PRIOR TO PURCHASING AND INSTALLING CONDUCTORS, BREAKERS, DISCONNECTS, CONDUIT, ETC. VERIFY RATINGS WITH FINAL, APPROVED CONTRACTOR EQUIPMENT SUBMITTALS AND EQUIPMENT NAMEPLATES DIRECTLY WITH THE PROVIDING CONTRACTOR.
- 46. UNLESS NOTED OTHERWISE WITHIN THE PROJECT CONSTRUCTION DOCUMENTS AND SPECIFICATIONS, ALL NEW ELECTRICAL DEVICES INDICATED ON THE ELECTRICAL PLANS SHALL BE PROVIDED BY THE ELECTRICAL CONTRACTOR (EXAMPLE: DISCONNECT SWITCHES. CIRCUIT BREAKERS. WIRING, CONDUIT, ETC.). VARIABLE FREQUENCY DRIVES, VFD CONTROL PANELS, DISCONNECT SWITCHES, COMBINATION MOTOR STARTER/DISCONNECTS AND ASSOCIATED COMPONENTS FOR NEW EQUIPMENT PROVIDED BY OTHERS SHALL BE PROVIDED BY THE CORRESPONDING CONTRACTOR AND INSTALLED BY THE ELECTRICAL CONTRACTOR (WHEN NOT FACTORY INSTALLED).
- 47. IT IS THE RESPONSIBILITY OF THE ELECTRICAL CONTRACTOR TO REVIEW THE ELECTRICAL PLANS AND SPECIFICATIONS, AS WELL AS ALL RELATED PROJECT PLANS AND SPECIFICATIONS FROM OTHER DISCIPLINES, TO BECOME FAMILIAR WITH THE FULL PROJECT SCOPE AND COORDINATED RESPONSIBILITIES. CONFLICT OF INTENDED RESPONSIBILITIES SHALL BE BROUGHT TO ENGINEERS ATTENTION, PRIOR TO SUBMISSION OF BID.
- 48. DURING THE COURSE OF CONSTRUCTION, COORDINATION AND FINAL TURNOVER, IT IS THE RESPONSIBILITY OF THE ELECTRICAL CONTRACTOR TO WORK CLOSELY WITH ALL CONTRACTORS AND TRADESMEN IN ORDER TO ENSURE A SMOOTH RUNNING AND CAREFULLY COORDINATED INSTALLATION.
- 49. ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE TO COORDINATE WITH OTHER TRADES FOR ITEMS IN THEIR SCOPE OF WORK WHICH COULD REQUIRE ADDITIONAL ELECTRICAL WORK, (DISCONNECTION, RECONNECTION, ETC.) AND ARE NOT INDICATED ON THE ELECTRICAL DRAWINGS.
- 50. CONTRACTOR SHALL COORDINATE ALL TEMPORARY ELECTRICAL POWER WITH UTILITY, AS REQUIRED, DURING DEMOLITION AND CONSTRUCTION ACTIVITIES AND SHALL BE RESPONSIBLE FOR THE USAGE AND PAYMENT THEREOF. CONTRACTOR SHALL COORDINATE ACTIVATION OF NEW PERMANENT POWER FOR VA.
- 51. EXISTING BUILDING ELECTRICAL INFRASTRUCTURE IS POURED INTO THE SLAB. CONTRACTOR SHALL PROVIDE X-RAY TESTING, PRIOR TO CONSTRUCTION. IN ALL AREAS WHERE THE EXISTING SLAB IS TO BE CUT. PROVIDE X-RAY TESTING REPORT TO ENGINEER FOR REVIEW. ANY HARM TO EXISTING INFRASTRUCTURE INCURRED DURING CONSTRUCTION SHALL BE BORNE BY THE CONTRACTOR.
- 52. ELECTRICAL CONTRACTOR SHALL INCLUDE A NEW SURVEY OF THE EXISTING WIFI SYSTEM IN THE O.R. SUITE AS PART OF THE SCOPE OF WORK. ALL EXISTING WIRELESS ACCESS POINTS SHALL BE REINSTALLED DURING PHASED WORK.
- 53. COORDINATE WITH IT PERSONNEL FOR ACCESS TO SECURE IT ROOMS.
- 54. ELECTRICAL CONTRACTOR SHALL SEAL ALL PENETRATIONS ABOVE ACCESSIBLE CEILING IN ROOMS 3B-155, 3B-155A, 3B-156, 3B-183, 3B-184, 3B-185.
- 55. ELECTRICAL CONTRACTOR SHALL PROVIDE, AT THE COMPLETION OF THE PROJECT, 100% WIRELESS DATA COVERAGE BASED ON THE STANDARDS LISTED IN THIS NOTE AND NOTE 56. TO ACCOMPLISH THIS. NEW WIRELESS ACCESS POINTS (WAPS) SHALL BE ADDED TO THE SCOPE OF WORK BASED ON THE CRITERIA LISTED BELOW. A NEW CAT 6 CABLE SHALL BE PROVIDED FROM EACH WAP TO THE NEW DATA RACK IN COMM 3B-162.
- ALL AREAS MUST BE COVERED WITH ONE WAP AT -67DBM SIGNAL STRENGTH ON 2.4
- ALL AREAS MUST BE COVERED WITH ONE WAP AT 25DB SIGNAL TO NOISE RATIO ON 2.4 • ALL AREAS MUST BE COVERED WITH THREE WAPS AT -75DBM SIGNAL STRENGTH ON

• IF BUILDING IS A WING (I.E. HALLWAY WITH ROOMS ON BOTH SIDES) THEN AT THE END

 CORNER WAPS WILL BE CLOSE TO THE PERIMETER EDGE. PLACE PERIMETER WAPS AT OR NEAR THE EDGE OF THE BUILDING.

MILLER-REMICK LLC

PROFESSIONAL ENGINEER

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- OF THE WING, PLACE WAPS IN BOTH CORNERS AND CONTINUE PLACEMENT FOR THREE AP COVERAGE AT -75DB SIGNAL STRENGTH. • IF THERE IS MORE THAN -80DB BLEED BETWEEN FLOORS, WAPS MUST BE STAGGERED ON ADJACENT FLOORS. WITH A WING WHERE THE CORNERS WERE USED FOR TRIANGULATION, STAGGER THE WAPS ON ADJACENT FLOORS. (THIS REQUEST OVERRIDES ABOVE PLACEMENT REQUIREMENTS). ELEVATOR WAPS MAY BE STACKED.
- UTILIZE PATIENT ROOMS AND OFFICES FOR WAP PLACEMENT. • REQUIRED TO WALK TO THE -75DBM SIGNAL STRENGTH BOUNDARY ON 2.4 GHZ. THIS IS TO ENSURE DATA COLLECTION OF THE 3RD AP COVERAGE AT -75DB REQUIREMENT
- 56. ELECTRICAL CONTRACTOR SHALL PROVIDE, OR SHALL HIRE A 3RD PARTY TO PROVIDE, A DETAILED SURVEY IN THAT VA APPROVED FORMAT OF THE WIRELESS DATA SYSTEM THROUGHOUT THE SCOPE OF WORK OF THIS PROJECT. THE SURVEY WILL BE CONDUCTED AS
- TO PROVIDE 802.11 WIRELESS COVERAGE IN THE 2.4 AND 5 GHZ FREQUENCIES. • TO CONSIDER IMPLEMENTATION USING CISCO 1131/1242 WIRELESS ACCESS POINTS (WAP). • TO PRODUCE A WLAN DESIGN TO SUPPORT DATA, VOICE, AND LOCATION SERVICES. • TO UTILIZE TOOLS TO PRODUCE DETAILED COVERAGE HEATMAPS AND SPECTRUM ANALYSIS TOOLS TO IDENTIFY ALL POTENTIAL SOURCES OF NOISE AND INTERFERENCE.

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FIRE ALARM DEMOLITION NOTES:

- THE CONTRACTOR SHALL INCLUDE IN HIS BID ALL COSTS ASSOCIATED WITH RELOCATION AND REMOVAL OF FIRE ALARM SYSTEM WORK AS DESCRIBED IN THE DRAWINGS AND SPECIFICATIONS WITH ALLOWANCES FOR EXPECTED OR UNFORESEEN ISSUES WHEN CONCEALED WORK HAS BEEN EXPOSED. NO ADDITIONAL CLAIMS FOR WORK ASSOCIATED WITH DEMOLITION WILL BE ACCEPTED, UNLESS, IN CERTAIN CASES, CONSIDERED JUSTIFIABLE BY THE ENGINEER.
- NOTE THAT THE FACILITY WILL BE FULLY OPERATIONAL DURING THE COURSE OF THIS
- 2.1. THE CONTRACTOR IS TO COORDINATE ALL OF THE DEMOLITION WORK WITH THE FACILITY PERSONNEL TO MINIMIZE DISTURBING THE OPERATING EQUIPMENT,
- 2.2. THE CONTRACTOR SHALL PERFORM REMOVAL AND DEMOLITION WORK WITH MINIMAL INTERFERENCE WITH EXISTING SYSTEMS.
- DEMOLITION AND REMOVAL OF WORK SHALL BE PERFORMED IN A NEAT AND PROFESSIONAL MANNER. THE CONTRACTOR SHALL RESTORE, PATCH, PAINT, ETC., ANY INTERIOR/EXTERIOR BUILDING SURFACE TO ITS ORIGINAL CONDITION.
- REFER TO FIRE ALARM PLANS FOR NEW EQUIPMENT AND DEVICE LAYOUTS AND EXTENT OF EQUIPMENT BEING REPLACED, RELOCATED, OR REMOVED. COORDINATE WITH ALL TRADES AS TO EXTENT OF EQUIPMENT BEING REMOVED OR RELOCATED. CLOSELY COORDINATE THE EXTENT OF DEMOLITION SCOPE OF WORK WITH ARCHITECT ENGINEER AND/OR MECHANICAL PLANS. PATCH AND PAINT (TO MATCH SURROUNDING CONDITIONS) ALL OPENINGS CREATED BY THIS DEMOLITION.
- EXISTING CONDITIONS, EQUIPMENT, MATERIALS & SIZES ARE SHOWN FOR REFERENCE ONLY. VERIFY EXISTING CONDITIONS AND BRING ANY DISCREPANCIES TO THE ENGINEER'S ATTENTION IN WRITING PRIOR TO BID SUBMISSION.
- ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE FOR ALL FIRE ALARM SYSTEM DEMOLITION WORK FOR THIS PROJECT WHETHER OR NOT SPECIFICALLY INDICATED ON THIS OR OTHER DEMOLITION PLANS. THIS WORK SHALL INCLUDE BUT IS NOT LIMITED TO THE DISCONNECTION, REMOVAL AND DISPOSAL OF: INITIATION AND NOTIFICATION DEVICES, JUNCTION BOXES, WIRE, CABLE, CONDUIT, MOUNTING HARDWARE STRAPS OR CABLES, ETC. PER THE SCOPE OF WORK FOR THIS PROJECT.
- THE ELECTRICAL CONTRACTOR SHALL REMOVE ALL FIRE ALARM DEVICES, INCLUDING ASSOCIATED WIRING, CONDUITS, COVERS, BOXES, ETC., WHERE INDICATED ON THE PLANS. WHERE THE REMOVAL OF THESE ITEMS DISRUPTS EXISTING WIRING THAT IS TO REMAIN, THE CONTRACTOR SHALL INSTALL IN THE CEILING SPACE; JUNCTION BOXES AND OTHER DEVICES AND PROVIDE BYPASS CONNECTIONS NECESSARY TO MAKE CIRCUITS AFFECTED CONTINUOUS AND READY FOR OPERATION. OTHERWISE, WIRING SHALL BE REMOVED BACK TO THE NEAREST ELECTRICAL JUNCTION BOX THAT IS TO REMAIN OR TO THE SOURCE PANELBOARD.
- 8. ALL WORK MUST BE SCHEDULED AND PERFORMED AS NOT TO INTERRUPT NORMAL OPERATIONS. REMOVAL OF ITEMS THAT WILL CAUSE ANY TYPE OF TEMPORARY SHUTDOWN SHALL BE PERFORMED DURING OFF-PEAK HOURS. ALL SUCH OUTAGES SHALL BE SCHEDULED AND COORDINATED WITH OWNER FIELD REPRESENTATIVE TO ENSURE ESSENTIAL SERVICES OR AREAS CAN BE MAINTAINED.
- THE CONTRACTOR SHALL NOTIFY THE OWNER AT THE APPROPRIATE TIME OF THE PROJECTED DEMOLITION AND PHASING SCHEDULE SO THAT REMOVAL OR RELOCATION OF AFFECTED UTILITIES MAY BE CARRIED OUT IN COORDINATION WITH THE PROJECT REQUIREMENTS. THE CONTRACTOR SHALL CLOSELY FOLLOW THE DEMOLITION AND PHASING SCHEDULE AND PROCEED IN THE SPECIFIED SEQUENCE.
- THE SHUTDOWN OF EXISTING BUILDING FIRE ALARM SYSTEM SHALL BE COORDINATED WITH THE OWNER. MAKE APPROPRIATE ARRANGEMENTS AT LEAST 5 BUSINESS DAYS PRIOR TO A SHUTDOWN.
- 11. THE CONTRACTOR SHALL REMOVE AND/OR RELOCATE ALL EXISTING FIRE ALARM SYSTEM WORK WHICH INTERFERES WITH THE NEW SYSTEM AND ARCHITECTURAL LAYOUTS IN FULL COORDINATION WITH THE ENGINEER'S PLANS. ALL SYSTEMS WHICH ARE NO LONGER REQUIRED TO FUNCTION SHALL BE DE-ENERGIZED AND DISCONNECTED AT THE SOURCE.
- 12. ELECTRICAL CONTRACTOR SHALL PROVIDE AND MAINTAIN ANY CONNECTIONS DISCONNECTIONS AS NEEDED TO ENSURE ADEQUATE SAFETY AND PROTECTION OF ALL

PERSONNEL AND EQUIPMENT.

- 13. ALL FIRE ALARM PANELS AND NOTIFICATION APPLIANCE POWER EXTENDERS SHALL BE MAINTAINED AS WORKING PANELS THROUGHOUT CONSTRUCTION AND WILL CONTINUE TO MAINTAIN CIRCUITS FOR EXISTING DEVICES TO REMAIN. PROVIDE AS NECESSARY TEMPORARY FEEDS TO ANY DEVICES THAT MAY BE REQUIRED FOR UNINTERRUPTED USE. PROVIDE TEMPORARY CONNECTIONS FOR RELOCATED EQUIPMENT DURING CONSTRUCTION.
- 14. ELECTRICAL CONTRACTOR SHALL ENSURE THAT ANY DEVICES LOCATED OUTSIDE OF DEMOLITION WORK AREA ARE NOT AFFECTED BY REMOVAL OF WIRING AND/OR CIRCUITING, WIRING/CONDUIT SHALL BE LEFT IN A SAFE CONDITION, LABELED FOR ITS USE, AND EXTENDED AS REQUIRED TO MAINTAIN CIRCUIT CONTINUITY, INCLUDING ALL APPLICABLE CONTROLS.
- 15. PORTIONS OF INITIATION AND NOTIFICATION LOOP RUNS THAT SHALL BE REMOVED OR ABANDONED AS A RESULT OF DEMOLITION WORK, BUT WHICH ARE REQUIRED TO REMAIN ENERGIZED, SHALL BE CUT AT CONVENIENT LOCATIONS, REROUTED AND RECONNECTED. NEW LOOP EXTENSIONS SHALL MATCH EXISTING WIRING SPECIFICATIONS IN ALL ASPECTS INCLUDING BUT NOT LIMITED TO CABLE TYPE, CONDUIT SIZES, ETC..
- 16. ALL EXISTING LOW VOLTAGE WIRING FOR FIRE ALARM SYSTEMS THAT ARE NOT REUSED SHALL BE REMOVED IN ITS ENTIRETY BY THE RESPONSIBLE CONTRACTOR.
- 17. CONTRACTOR IS TO EXERCISE EXTREME CAUTION WHEN CUTTING SLAB TO AVOID DAMAGE TO ANY EXISTING CONDUITS, PIPING, ETC. THAT MAY BE CONCEALED IN OR BENEATH THE SLAB. ANY FLOOR SLAB AFFECTED BY THE REMOVAL OF DEVICES FED VIA UNDERGROUND CONDUIT OR WIRING, SHALL BE FIRESTOPPED AND PATCHED BY THE GENERAL CONTRACTOR AND TO MATCH SURROUNDING FLOOR.
- 18. ELECTRICAL CONTRACTOR IS RESPONSIBLE FOR DISCONNECTING, RELOCATING, AND/OR RECONNECTING ALL EXISTING EQUIPMENT THAT IS TO REMAIN, EVEN IF THIS EQUIPMENT IS NOT SHOWN ON PLANS OR SCHEDULES. ELECTRICAL CONTRACTOR IS RESPONSIBLE FOR EXTENDING EXISTING SYSTEM LOOPS FROM EXISTING EQUIPMENT THAT IS REMAINING TO NEW LOCATION.
- 19. IN THE EVENT THAT FIRE ALARM PLANS CALL FOR EXISTING WIRING TO BE REUSED, THE ELECTRICAL CONTRACTOR SHALL SURVEY EXISTING WIRING, BOXES, ETC. TO DETERMINE IF THE EXISTING WIRING MAY BE REUSED FOR NEW DEVICES (IF WIRING REMAINS IN IT'S ORIGINAL CONDUIT). ELECTRICAL CONTRACTOR SHALL DETERMINE THAT THE ENTIRE RUN OF EXISTING WIRING. FROM SOURCE TO DEVICE FOR WIRING TO BE REUSED, IS FEASIBLE FOR REUSE AND MEETS THE REQUIREMENTS OF THE NATIONAL ELECTRICAL CODE, STATE AND LOCAL CODES HAVING JURISDICTION.
- 19.1. IN INSTANCES WHERE EXISTING WIRING IS TO BE EXTENDED OR REUSED, ELECTRICAL CONTRACTOR SHALL DISCONNECT EXISTING WIRING AND LEAVE IN A SAFE CONDITION (TAG AND LABEL ITS USE) FOR FUTURE RECONNECTION
- DURING RENOVATION PHASE. 20. ALL UNUSED OUTLET BOXES THAT ARE TO REMAIN SHALL BE PROVIDED WITH
- ALL RACEWAYS WHICH ARE EXPOSED AS A RESULT OF NEW WORK SHALL BE REMOVED AND REROUTED CONCEALED BEHIND FINISHED SURFACES.

MATCHING BLANK COVERS.

PRIOR TO INITIAL ROUGH-IN.

- 22. EXISTING RACEWAYS THAT ARE NOT BEING REUSED SHALL BE REMOVED BACK TO THE NEAREST JUNCTION OR PULLBOX, AND THE OPENINGS BLANKED.
- 23. ANY CONDUITS PENETRATING MASONRY SURFACES SHALL BE CUT INTO SURFACE, PATCHED, AND PAINTED TO MATCH SURROUNDINGS.

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24. DISCONNECT, RELOCATE OR REMOVE ELECTRICAL INSTALLATIONS AND EQUIPMENT AS INDICATED BY PLANS AND AS REQUIRED BY CHANGES IN CONSTRUCTION. WHERE EXISTING ELECTRICAL INSTALLATIONS INTERFERE WITH NEW WORK AND WHERE SUCH INSTALLATIONS ARE TO REMAIN IN USE, THE NEW INSTALLATIONS SHALL BE RELOCATED AND/OR RECONNECTED TO COORDINATE WITH THE WORK INDICATED ON THE CONTRACT DRAWINGS. DETERMINE AND COORDINATE ALL EQUIPMENT LOCATIONS

FIRE ALARM DEMOLITION NOTES (CONT.):

- 25. DISCONNECT AND RELOCATE/RECONNECT ANY ELECTRICAL LINES, DEVICES (INCLUDING FIRE ALARM DEVICES), ETC. AND REPAIR PULL BOXES THAT MAY BE DISTURBED DURING THIS RENOVATION. UNLESS NOTED OTHERWISE, ALL EXISTING ELECTRICAL WORK WHICH WILL NOT BE RENDERED OBSOLETE AND WHICH MAY BE DISTURBED DUE TO ANY CHANGES REQUIRED UNDER THE CONTRACT, SHALL BE RESTORED TO ITS ORIGINAL OPERATING CONDITION AT NO COST TO OWNER. IF ANY EQUIPMENT TO REMAIN IS DAMAGED DURING CONSTRUCTION, IT SHALL BE REPLACED WITH NEW (WITH NO COST APPLIED TO OWNER).
- 26. ALL MATERIALS AND EQUIPMENT TO BE DEMOLISHED ARE TO BE DISPOSED OF BY THE CONTRACTOR, UNLESS DIRECTED OTHERWISE BY THE OWNER. CONTRACTOR IS RESPONSIBLE FOR DISPOSAL OF ALL MATERIALS IN ACCORDANCE WITH LOCAL AND FEDERAL LAWS. ALL MATERIALS THAT ARE CONSIDERED TO BE RECYCLABLE ARE TO BE RECYCLED ACCORDINGLY BY THE CONTRACTOR.

GENERAL FIRE ALARM NOTES

- FIRE ALARM SYSTEM SHALL BE AN ADDRESSABLE TYPE SYSTEM, AND DEVICES SHALL BE INDIVIDUALLY ADDRESSED.
- MODIFICATIONS TO THE FIRE ALARM SYSTEM SHALL BE PROVIDED AND INSTALLED BY ELECTRICAL CONTRACTOR'S FIRE ALARM VENDOR. PLANS REFLECT THE DESIGN INTENT ONLY AND ARE TO BE USED FOR DEVICE PLACEMENT ONLY. ALL MODIFICATIONS REQUIRED BY THE OWNER AND THE LOCAL FIRE OFFICIALS
- SHALL BE INCORPORATED INTO THE INSTALLED SYSTEM. ALL COMPONENTS SHALL BEAR THE U.L. LABEL FOR FIRE SERVICE USE AND
 - PROVIDE PERMANENT, "TYPED" LABEL ON INSIDE OF ALL FIRE ALL CABINETS. INDICATE SPECIFIC DEDICATED POWER CIRCUIT FEEDING PANEL.
 - 5. ALL FIRE ALARM SYSTEM JUNCTION BOXES AND CONDUITS SHALL BE PAINTED RED. COVER PLATES SHALL BE PAINTED RED AND MARKED 'FA' AS WELL AS INDICATING THE CONTENTS OF THE BOX.

SHALL BE COMPATIBLE FOR USE WITH ALL INTERCONNECTING EQUIPMENT.

- 6. INSTALLING CONTRACTOR SHALL RETURN ONE SET OF ACCURATELY MARKED DRAWINGS FOR 'AS BUILT' PURPOSES, WITH INSTALLED WIRING RUNS AND EQUIPMENT LOCATIONS.
- 7. FIRE ALARM CONTRACTOR SHALL UPDATE DRAWINGS AND GRAPHICS IN THE MAIN FIRE ALARM PANEL SHOWING THE LOCATIONS OF ALL FIRE ALARM DEVICES.
- 8. REFER TO DRAWING FA-601 FOR FIRE ALARM SYSTEM MATRIX SEQUENCE OF OPERATIONS, FIRE ALARM RISER DIAGRAM, AND ADDITIONAL INFORMATION.
- 9. THE COMPLETE SYSTEM SHALL BE INSTALLED IN STRICT CONFORMANCE WITH THE PROJECT SPECIFICATIONS, IN ACCORDANCE WITH THE NATIONAL ELECTRICAL CODE. NFPA72, A.N.S.I., A.D.A. REQUIREMENTS, NFPA 101, VA FIRE PROTECTION
- 10. FIRE ALARM SYSTEM VENDOR SHALL BE RESPONSIBLE FOR OBTAINING ALL INSPECTIONS RELATING TO THE SYSTEM INSTALLATION. THIS SHALL INCLUDE

DESIGN MANUAL, AND ALL STATE AND LOCAL BUILDING CODES.

PAYING FOR ALL FEES AND SCHEDULING OF INSPECTION. 11. SHOP DRAWINGS SHALL BE PROVIDED TO THE ENGINEER PRIOR TO BEGINNING ANY WORK. SHOP DRAWINGS SHALL INDICATE WIRE COUNTS, CONDUCTOR TYPES, RACEWAY LOCATIONS AND SIZES, EQUIPMENT CATALOG NUMBERS, BATTERY CALCULATIONS, AND DESCRIPTIONS CLEARLY HIGHLIGHTED TO SPECIFICALLY INDICATE WHICH PRODUCTS ARE PROPOSED FOR USE. AFTER SATISFACTORY

REVIEW BY THE COR AND SAFETY DEPARTMENT, WORK SHALL COMMENCE.

- 12. FIRE ALARM CONTRACTOR SHALL SUBMIT FIRE ALARM SHOP DRAWINGS (INCLUDING ALL TECHNICAL DATA SHEETS) THAT COMPLY WITH FIRE OFFICIAL'S OFFICE SYSTEM INSTALLATION REQUIREMENTS, TO THE FIRE MARSHAL WITHIN 30 DAYS OF PERMIT ISSUE, FOR FINAL PERMIT APPROVAL PRIOR TO START OF
- 13. AS-BUILT DRAWINGS SHOWING POINT BY POINT CONNECTIONS OF ALL DEVICES AND FINAL EQUIPMENT LOCATIONS SHALL BE PROVIDED TO OWNER UPON FINAL FIRE MARSHAL INSPECTION AND APPROVAL.
- 14. FINAL CONNECTIONS BETWEEN EQUIPMENT AND WIRING SYSTEM SHALL BE MADE UNDER DIRECT SUPERVISION OF A QUALIFIED TECHNICAL REPRESENTATIVE OF THE EQUIPMENT MANUFACTURER, WHO SHALL TEST THE SYSTEM COMPLETELY AND PROVIDE A CERTIFICATE IN WRITING AS TO THE PROPER INSTALLATION AND OPERATION OF THE FIRE ALARM SYSTEM PRIOR TO FINAL ACCEPTANCE OF THE
- SYSTEM BY THE OWNER. 15. FIRE ALARM CONTRACTOR SHALL COORDINATE ALL SIGNAL DEVICE LOCATIONS AND MOUNTING HEIGHTS WITH FIXTURE PLAN, FIRE MARSHAL AND OWNER'S
- REPRESENTATIVE PRIOR TO ROUGH-IN. 16. FIRE ALARM CONTRACTOR SHALL UTILIZE FIRE RATED CABLE FOR FIRE ALARM SYSTEM. INSTALL CABLE PER NATIONAL ELECTRICAL CODE AND ALL STATE AND LOCAL CODES HAVING JURISDICTION. CABLE SHALL BE RUN PARALLEL OR PERPENDICULAR TO BUILDING STRUCTURE. ROUTE CABLES ABOVE BOTTOM CORD
- OF JOISTS, CONCEALED TO MAXIMUM EXTENT POSSIBLE. 17. THE MINIMUM SIZE CONDUIT SHALL BE PROVIDED AS REQUIRED BY TABLE 4 IN, CHAPTER 9, OF THE NATIONAL ELECTRIC CODE, USING ACTUAL CROSS SECTION
- AREA OF THE WIRING INSTALLED. 18. THE INSTALLER IS RESPONSIBLE FOR VERIFYING ALL WIRING IS CLEAR OF ANY GROUNDS, OPENS, OR SHORTS, AND THAT THE CIRCUITS ARE OF THE CORRECT RESISTANCE AND CAPACITANCE VALUES PRIOR TO TERMINATION OF WIRING TO FIRE ALARM EQUIPMENT. IN ADDITION, ALL WIRING MUST BE PROPERLY
- 19. TEE BARS SHALL BE USED TO SUPPORT JUNCTION BOXES IN SUSPENDED CEILING PANELS. LOCATE CABLE SO THEY DO NOT PREVENT REMOVAL OF
- 20. ALL OPENINGS SHALL BE SEALED UPON COMPLETION OF INSTALLATION TO PREVENT THE SPREAD OF SMOKE AND FIRE THROUGH OPENINGS. OPENINGS SHALL ALSO BE SEALED TO PREVENT WATER SEEPAGE WHERE APPLICABLE. ALL OPENINGS SHALL BE COORDINATED WITH OTHER CRAFTS TO PREVENT INTERFERENCE AND OBSTRUCTION. PENETRATIONS THROUGH FIRE WALLS MUST BE MADE BY AN APPROVED THROUGH PENETRATION FIRESTOP SYSTEM.
- 21. CONDUIT RUNS SHOWN DIAGRAMMATIC. INSTALLER SHALL FIELD VERIFY ALL LENGTHS, DIMENSIONS, AND ARRANGEMENTS PRIOR TO COMMENCEMENT OF WORK. INSTALLER SHALL IDENTIFY INTERFERENCES BETWEEN WORK IN OTHER
- 22. WIRING SHALL BE PER PLAN WITH RESPECT TO CONDUCTOR SIZE, TYPE, AND QUANTITY. CONDUCTORS SHALL BE PERMANENTLY MARKED FOR FUTURE IDENTIFICATION. PERMANENT WIRE MARKERS SHALL BE USED TO IDENTIFY THE TERMINATIONS OF ALL CONDUCTORS WITH THE FIRE ALARM CONTROL PANEL,
- PULL BOXES, AND OTHER PANELS (REFERENCE NEC 760.10).

LIGHTING FIXTURES.

A SUPPLY REGISTER.

SUPPORTED.

- 23. REFER TO PLANS FOR DEVICE QUANTITIES AND LOCATIONS. 24. LOCATE DEVICES TO AVOID ANY CONFLICT WITH HVAC DUCTS, DIFFUSERS AND
- 25. CONTRACTOR SHALL VERIFY LOCATION OF ALL NEW CEILING MOUNTED FIRE ALARM DEVICES WITH OTHER TRADES PRIOR TO INSTALLATION. LOCATION OF DETECTORS SHALL COMPLY WITH THE FOLLOWING: SHALL NOT BE CLOSER THAN 24 INCHES FROM ANY VERTICAL OBSTRUCTION (BEAM, COLUMN, A/C DUCT, ETC.) SHALL NOT BE CLOSER THAN 3 FT. FROM, NOR IN THE DIRECT PATH OF
- 26. WHEN CEILING MOUNTED, SMOKE AND/OR HEAT DETECTORS SHALL BE MOUNTED NO CLOSER THAN 4" TO A SIDE WALL; OR WHEN WALL MOUNTED, NO HIGHER THAN 4" OR LOWER THAN 12" FROM THE TOP OF THE DETECTOR TO THE
- 27. THE DUST COVERS FURNISHED WITH THE SMOKE DETECTORS MUST BE

INSTALLED WITH EACH DEVICE UNTIL FINAL CHECKOUT (REFERENCE NFPA 72).

28. UPON COMPLETION OF THE RENOVATION, CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING UPDATED FACILITY MAPS AND ZONE SCHEDULES FOR BOTH BUILDINGS. MAPS SHOULD INDICATE LOCATION OF ALL FIRE ALARM DEVICES, DETAILED ZONE NUMBERS OR ADDRESSES AS REQUIRED. REFER TO FIRE ALARM SPECIFICATIONS FOR ADDITIONAL INFORMATION.

ALARM WIRING ASSOCIATED WITH THE SMOKE DAMPER AT THAT LOCATION.

29. LOW VOLTAGE POWER FOR ALL SMOKE DAMPERS SHALL ORIGINATE VIA THE FIRE L

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RENOVATE SURGICAL ELECTRICAL DEMOLITION 581-13-101 **SERVICE & UPGRADE** AND NEW WORK NOTES **Building Number OPERATING ROOMS** ARCHITECTURE, PLANNING, INTERIORS Approved: Medical Center Director Location HUNTINGTON, WV Drawing Number

Project Title

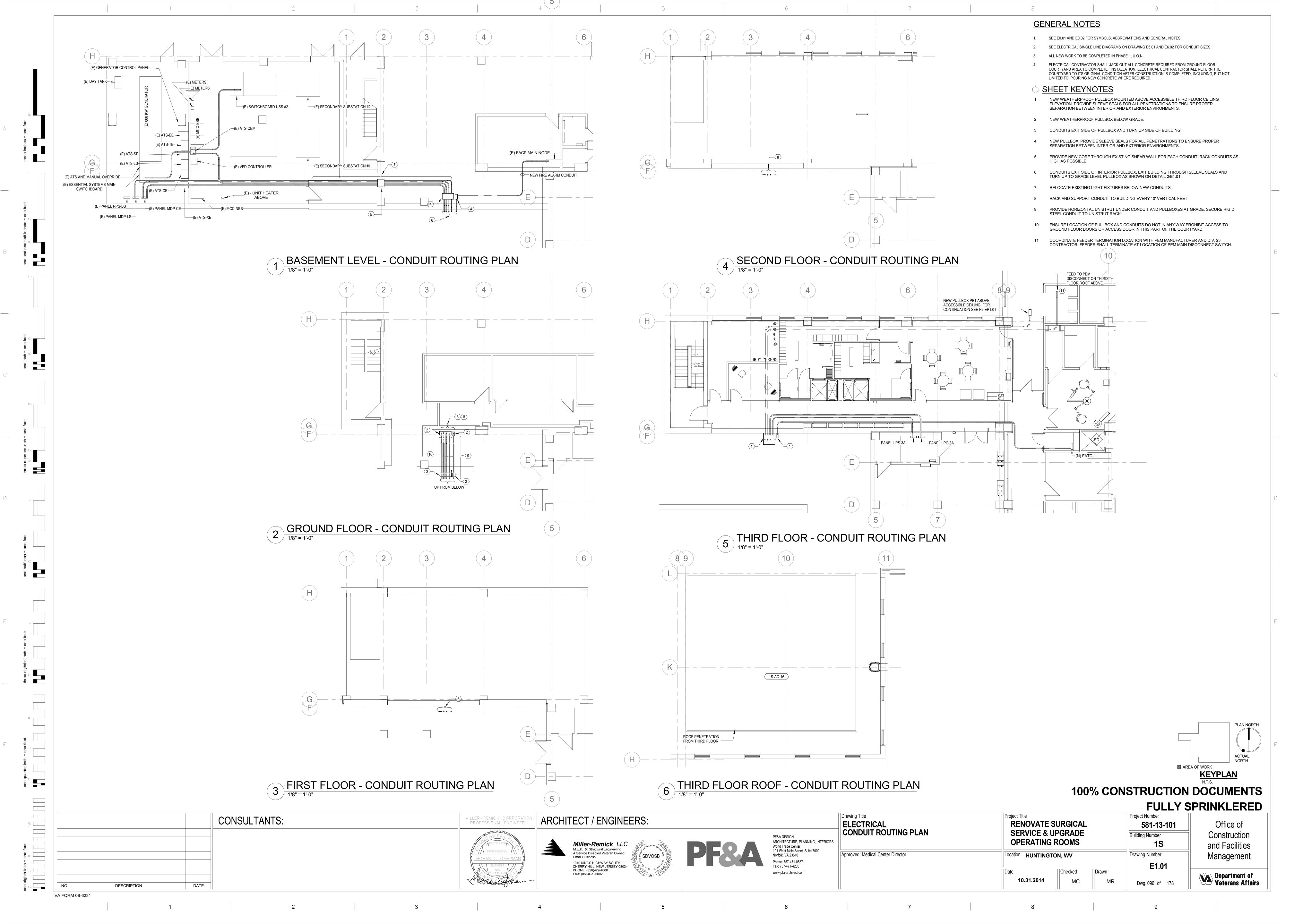
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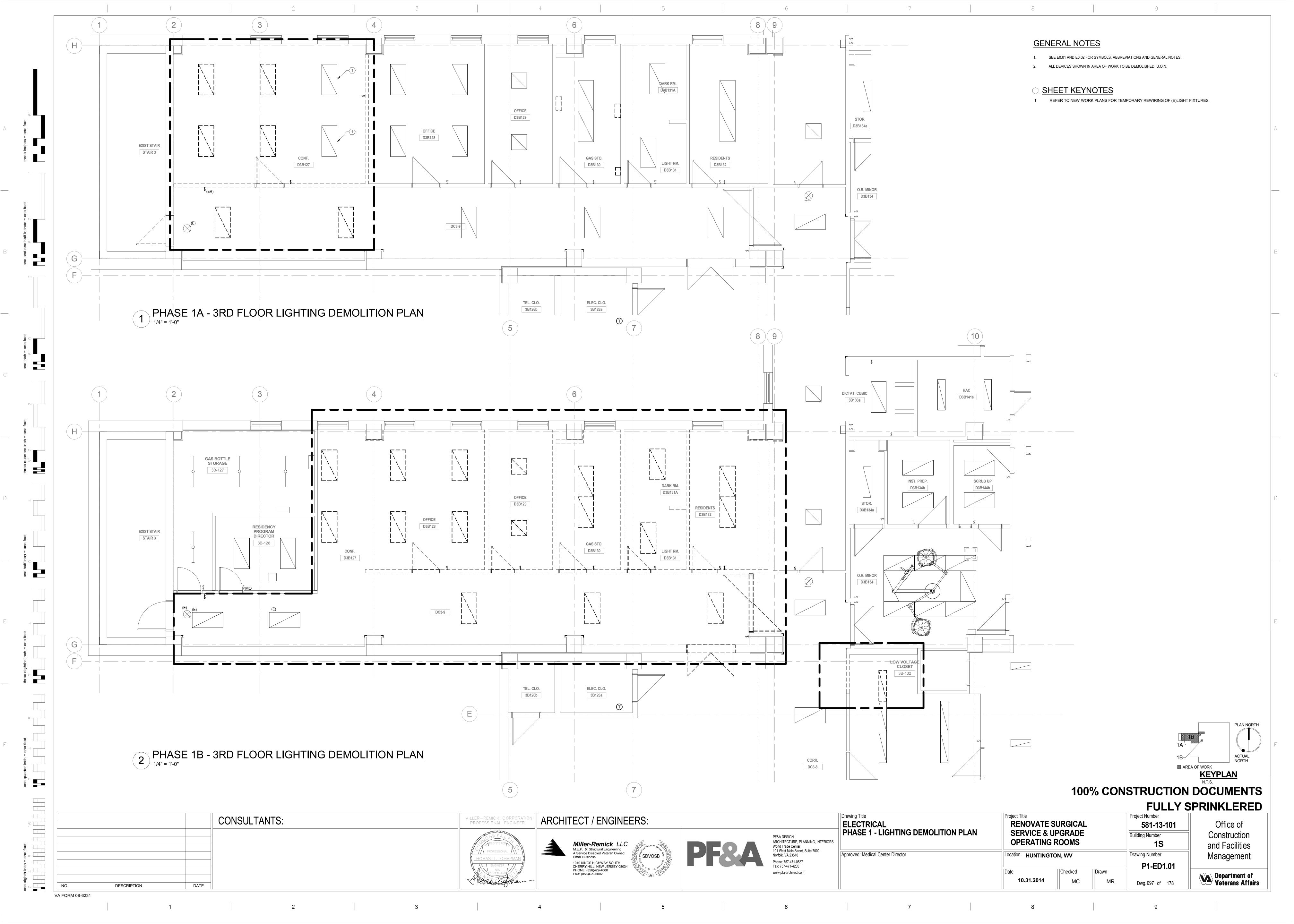
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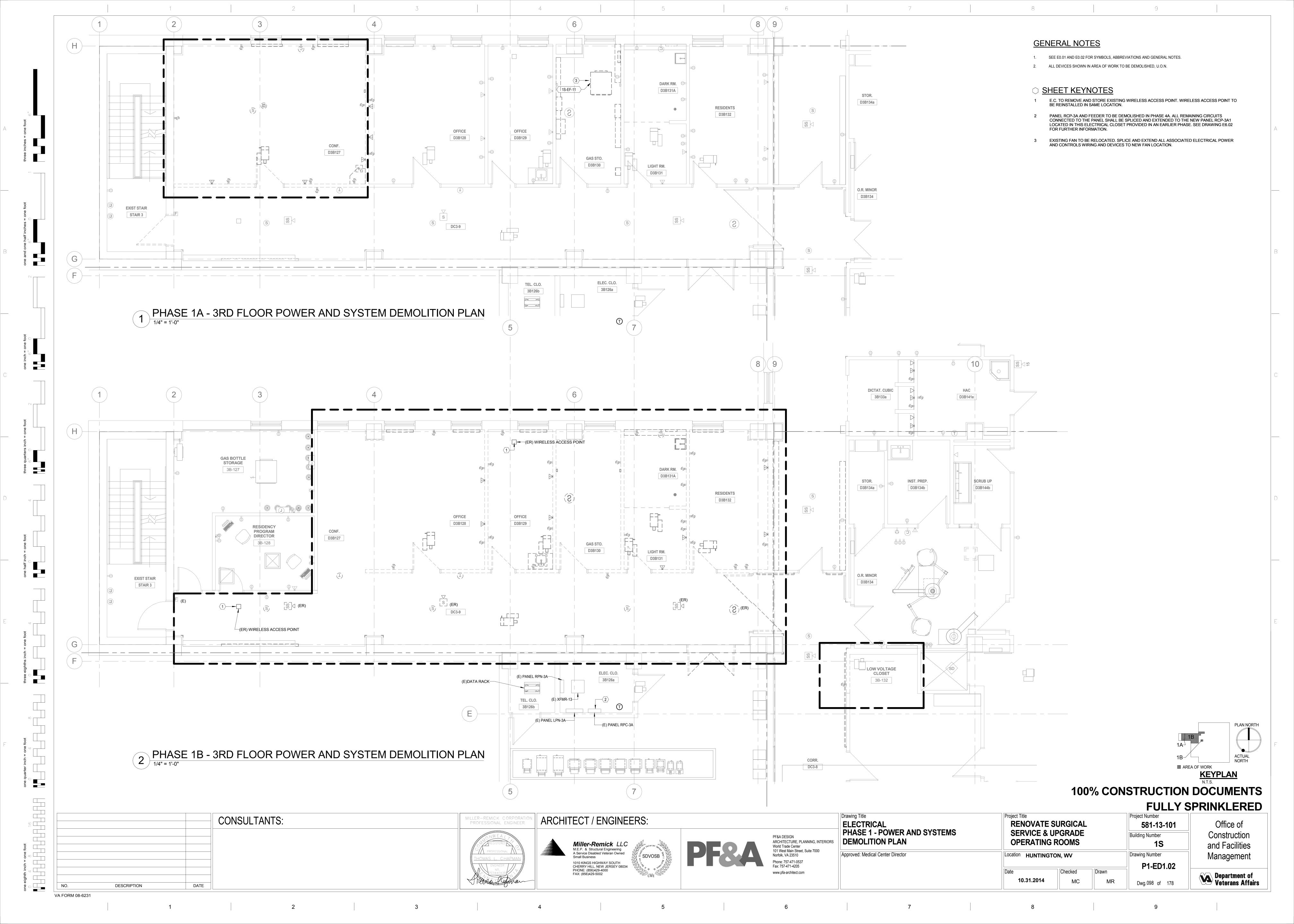
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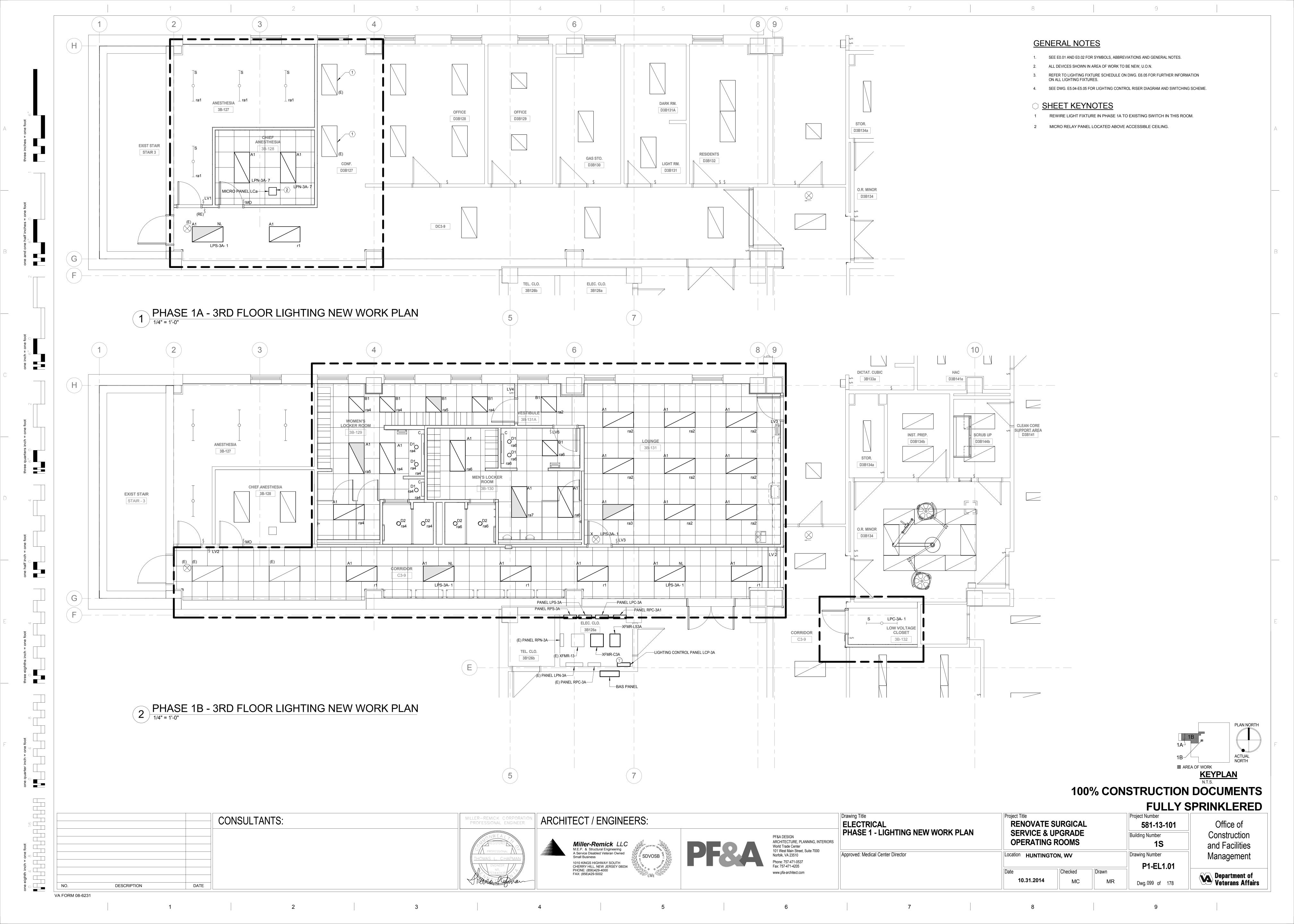
- 8. SECURE ALL SUPPORTS TO BUILDING STRUCTURE BY STEEL FOR VERTICAL SUPPORT AND BY MEANS OF TOGGLE BOLTS ON HOLLOW MASONRY UNITS, EXPANSION SHIELDS IN CONCRETE OR BRICK. MACHINE SCREWS ON METAL SURFACE, AND WOOD SCREWS ON WOOD CONSTRUCTION. NAILS, RAWL OR WOOD PLUGS NOT PERMITTED. SUPPORT HORIZONTAL RUNS OF METALLIC CONDUITS NOT MORE THAN 10 FT. APART. SUPPORT RACEWAY RISERS AT EACH FLOOR LEVEL. RUN EXPOSED RACEWAYS PARALLEL WITH
- 11. PASS RACEWAYS OVER WATER, STEAM, OR OTHER PIPING WHEN PULL BOXES ARE
- 14. NOT USED.
- RACEWAYS TO MOTOR FOUNDATION.
- 19. WIRE COLOR CODING: PER CODE. WHERE COLOR—CODED CABLE IS NOT AVAILABLE.
- 20. PULL NO THERMOPLASTIC WIRES AT TEMPERATURES LOWER THAN 32°F. 21. PROVIDE CABLE SUPPORTS FOR WIRE IN RISER CONDUITS AS REQUIRED BY CODE.
- 23. PROVIDE PULL BOXES AS INDICATED AND WHEREVER NECESSARY TO FACILITATE
- COORDINATE LOCATIONS WITH OTHER TRADES.
- 26. SUPPORT JUNCTION AND PULL BOXES INDEPENDENTLY TO BUILDING STRUCTURE WITH NO WEIGHT BEARING ON CONDUITS. 27. ELECTRICAL CONTRACTOR SHALL COORDINATE ADDITIONAL CONTROL CIRCUITING
- 28. ALL ACCESS DOOR LOCATIONS SHALL BE REVIEWED BY ARCHITECT AND/OR ENGINEER PRIOR TO INSTALLATION.
- MOUNTED SO THAT THE DISTANCE FROM THE TOP CIRCUIT BREAKER OPERATING HANDLE, TO THE TOP OF THE FINISHED FLOOR SHALL NOT EXCEED 6'-6" (MAX.) 30. ALL PANELS SHALL BE BALANCED AS EVENLY AS POSSIBLE ACROSS PHASES. ALL

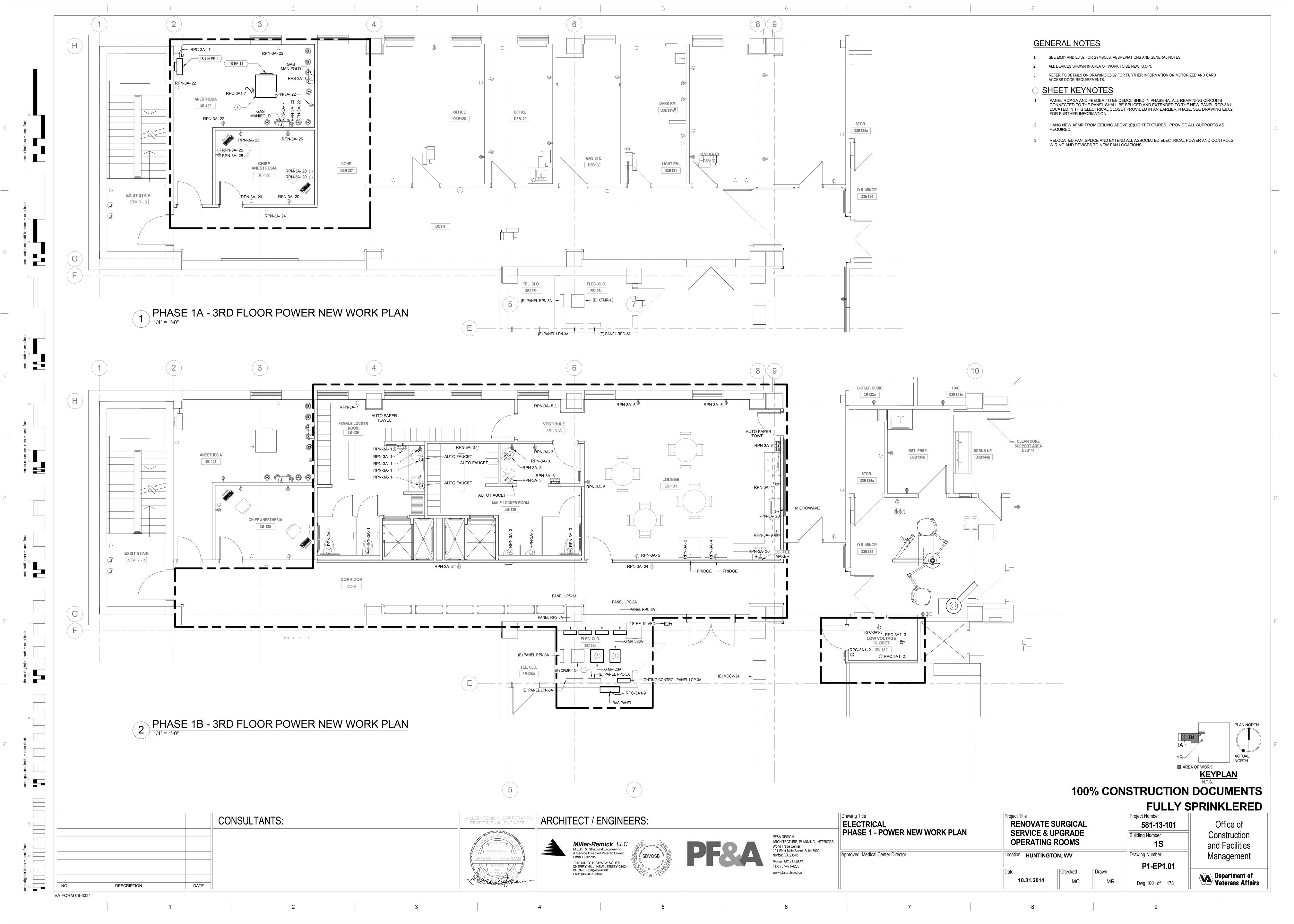
- KEYS PER PANEL.

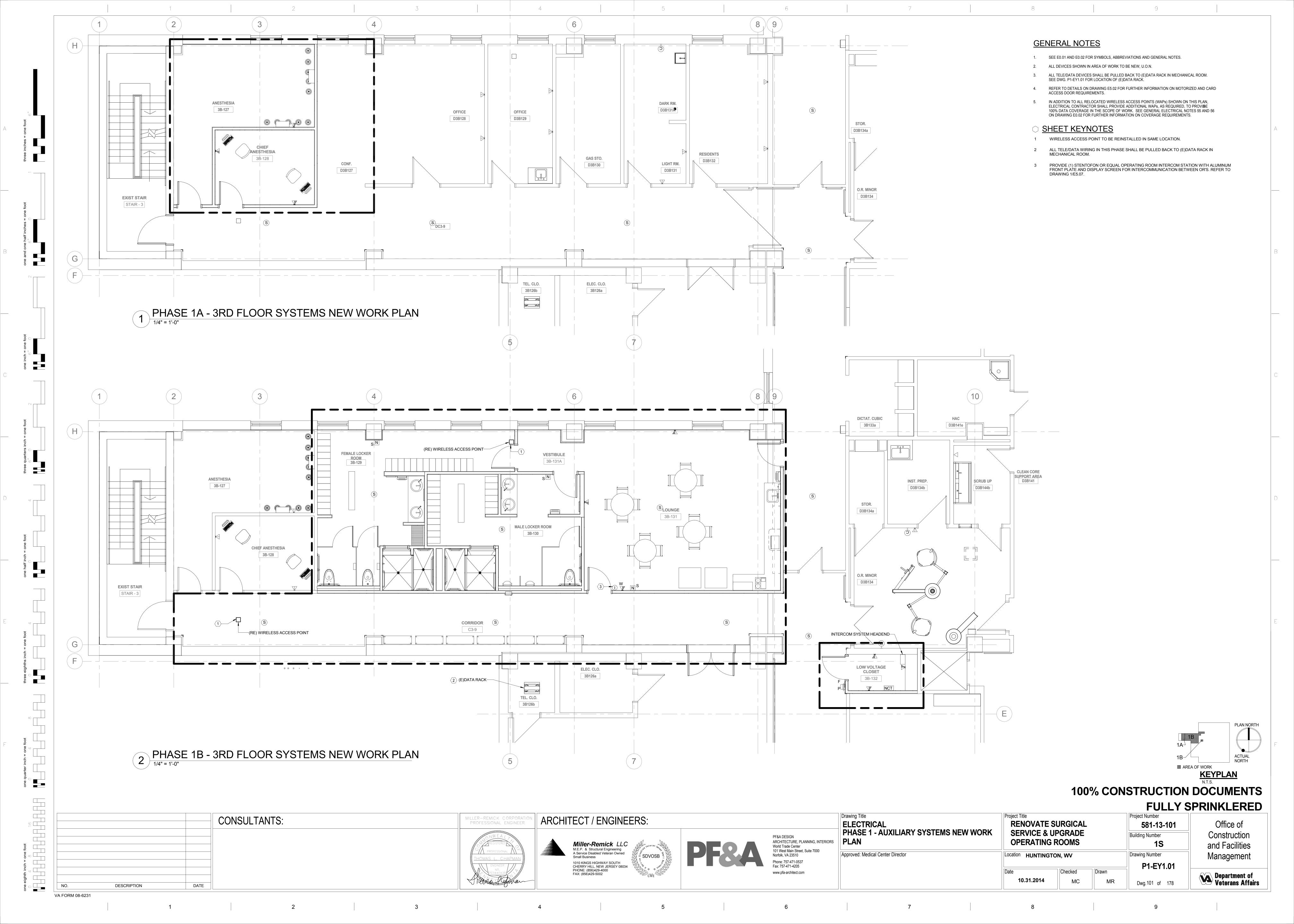


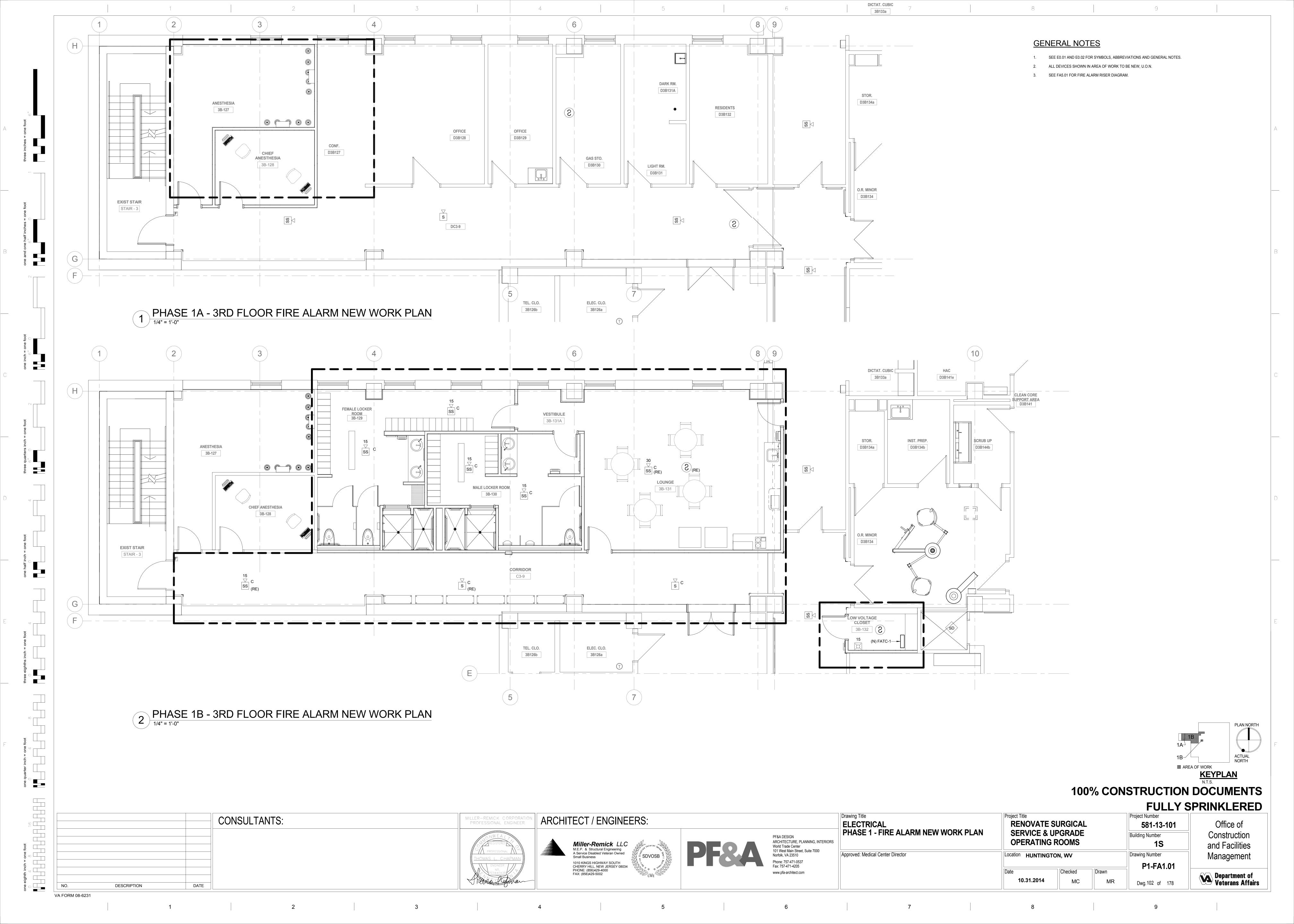


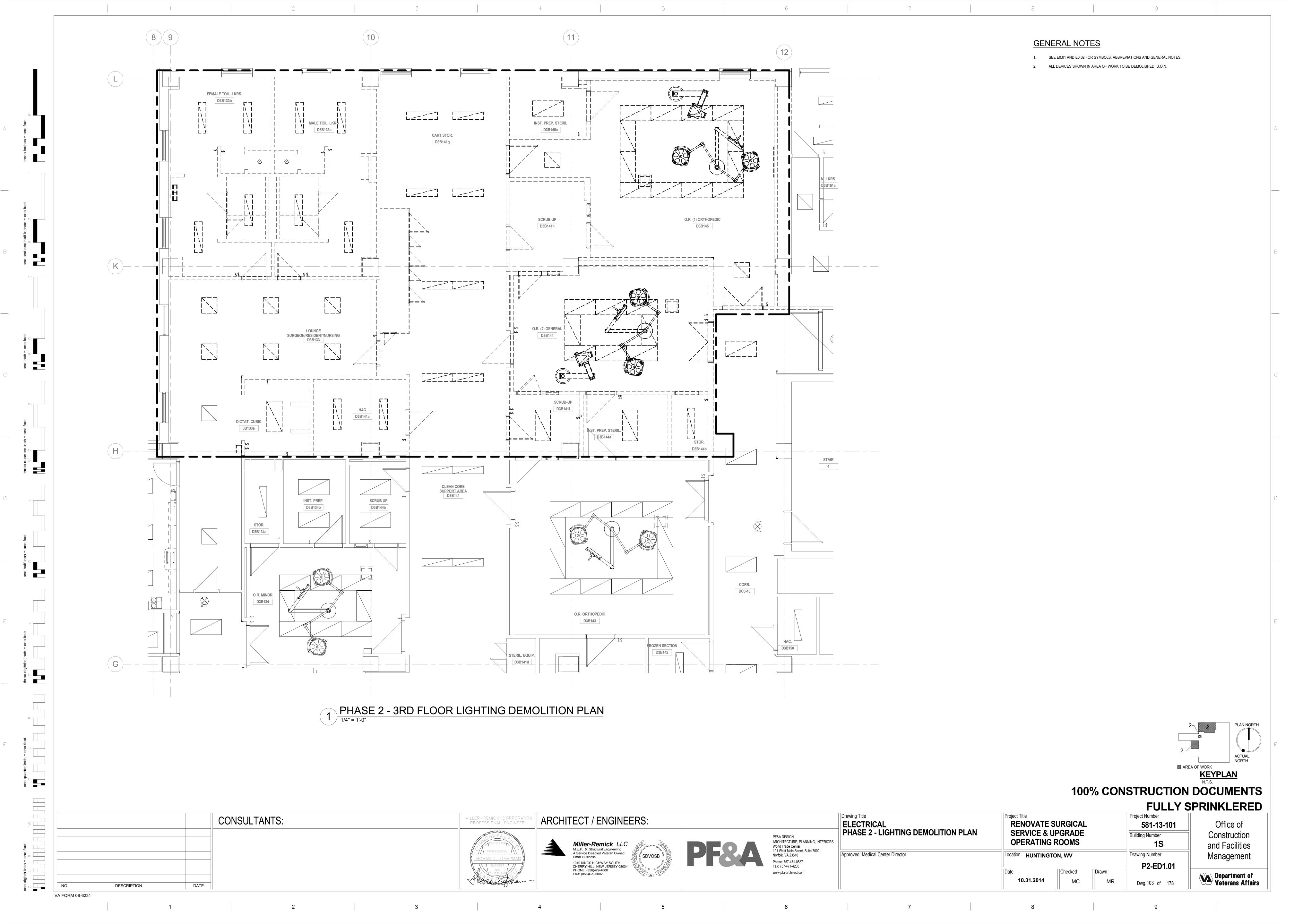


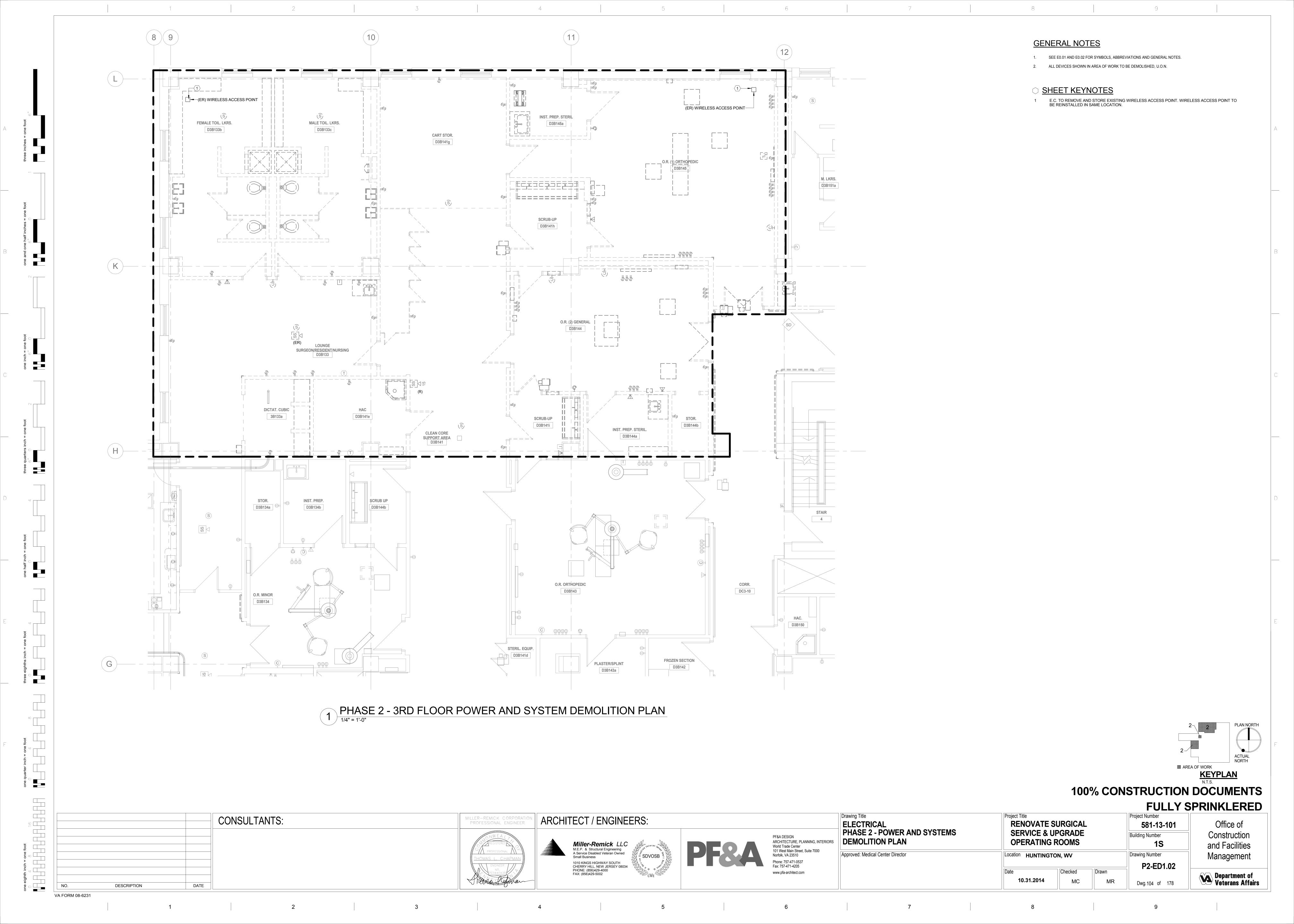


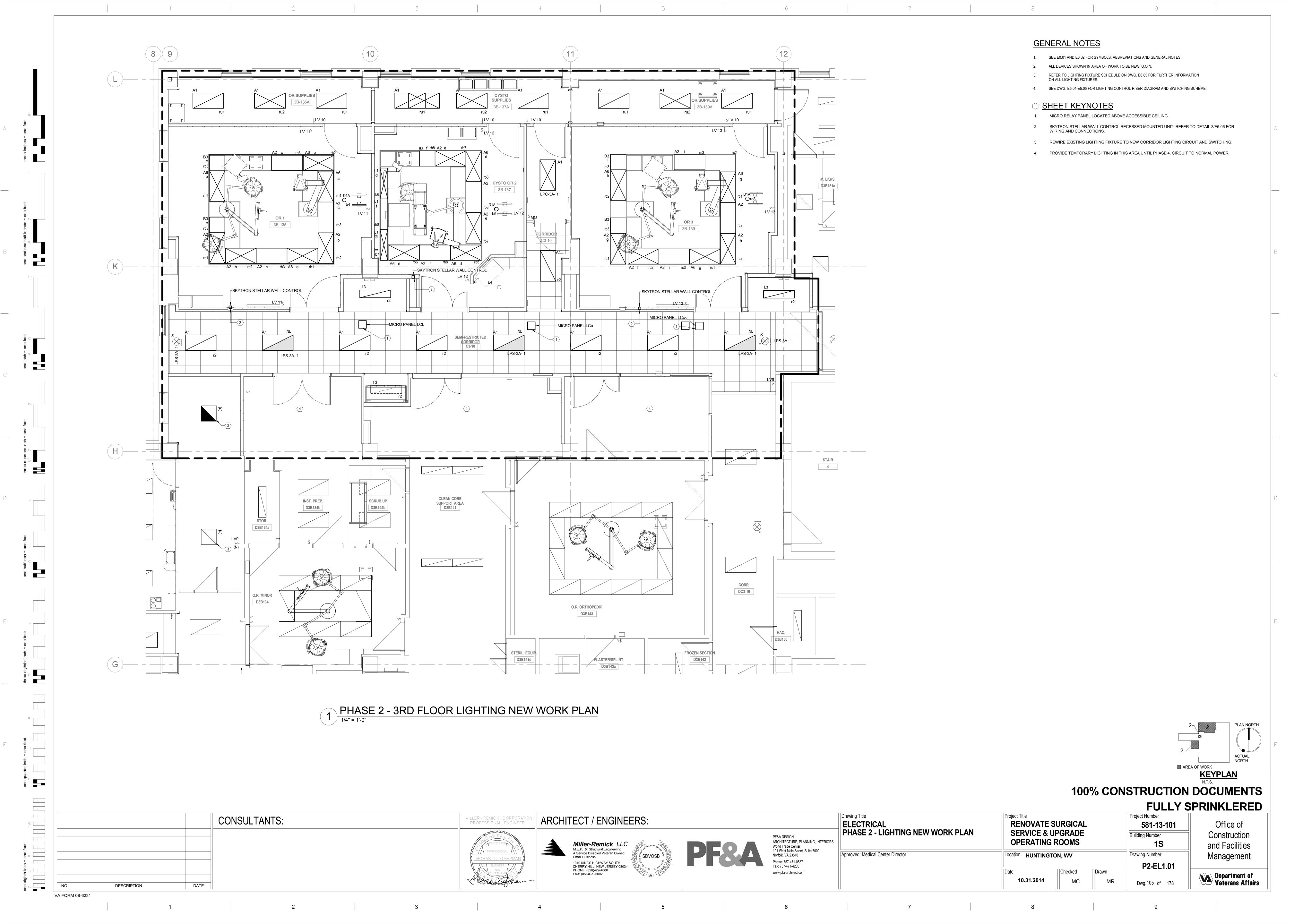


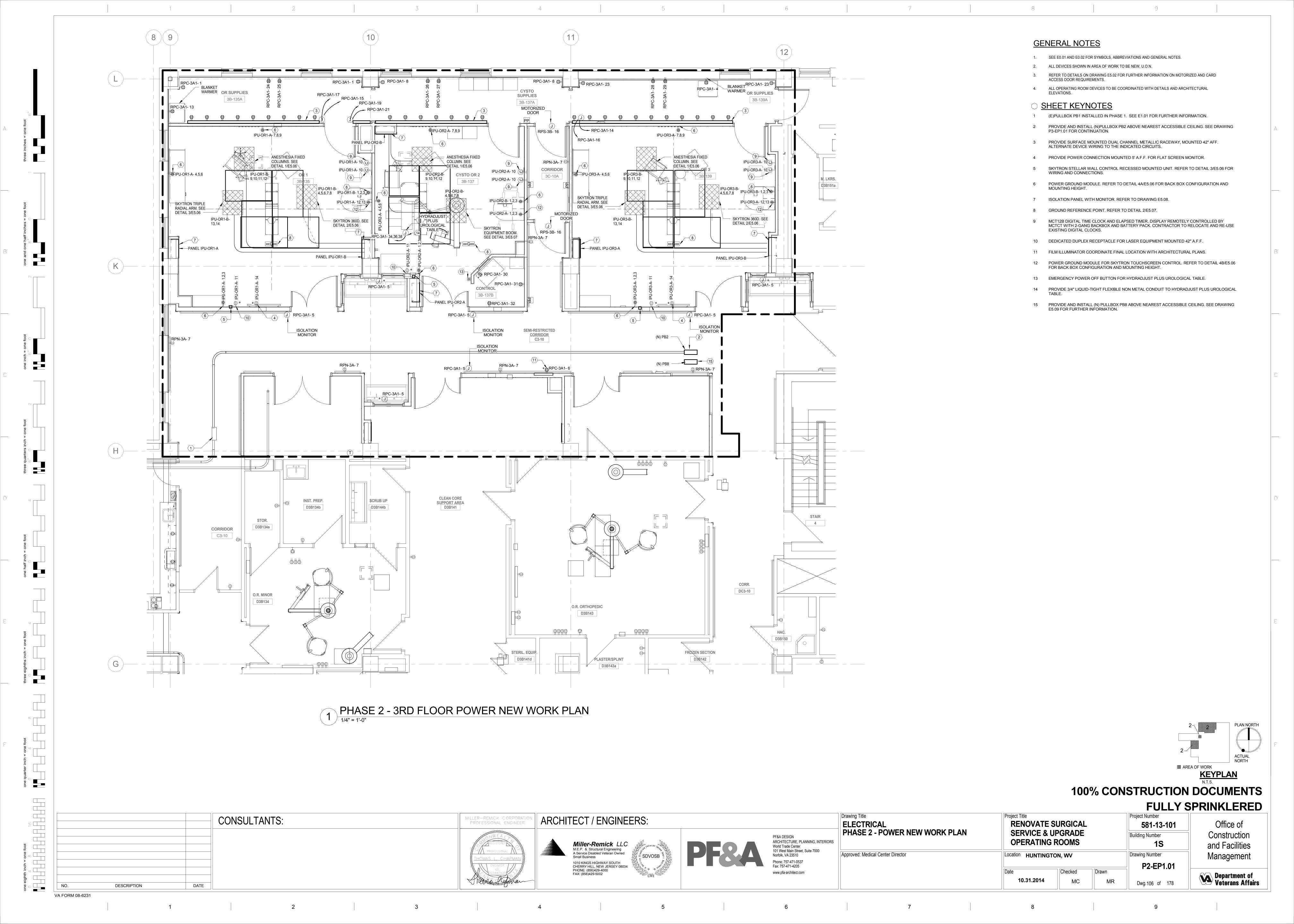


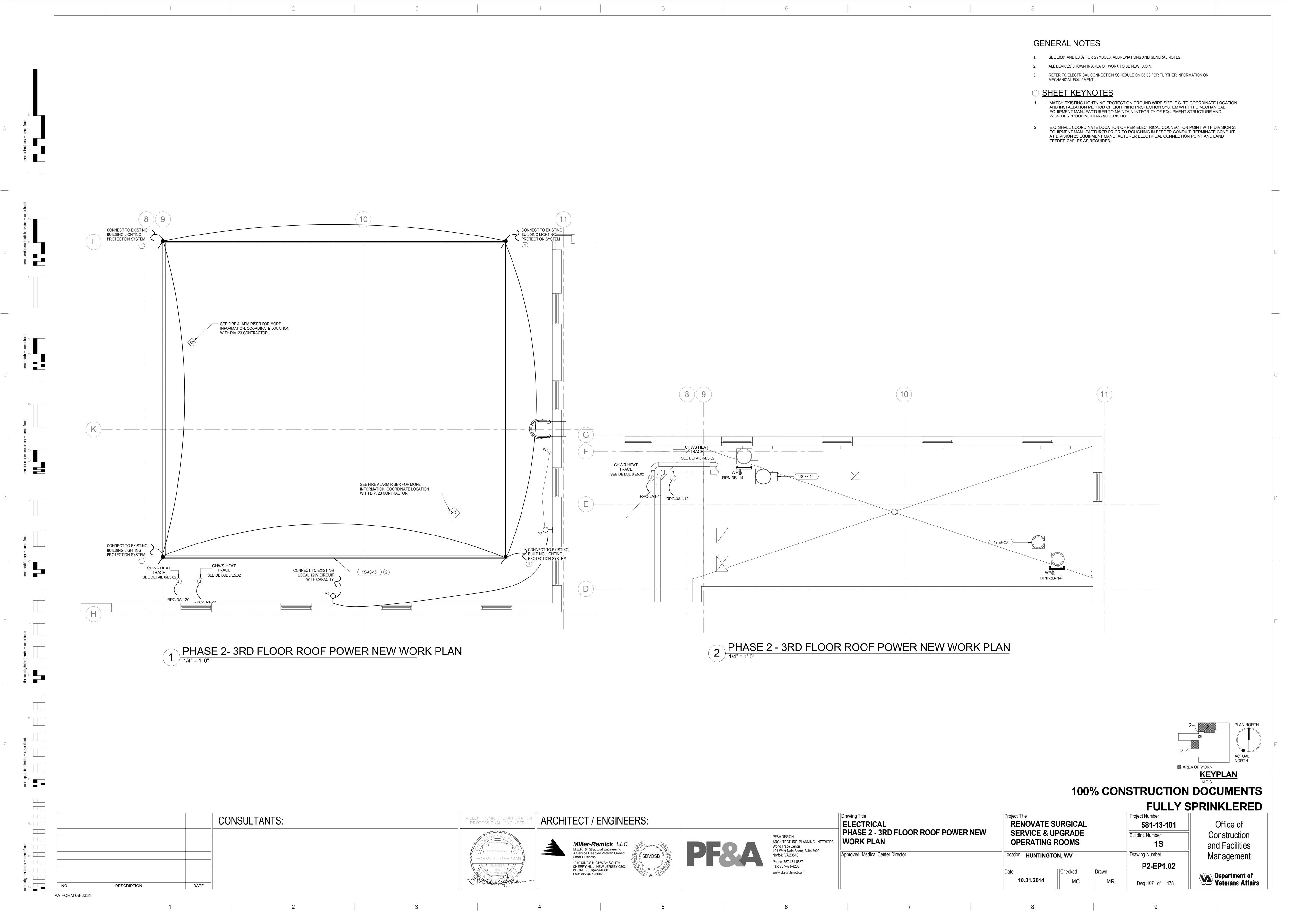


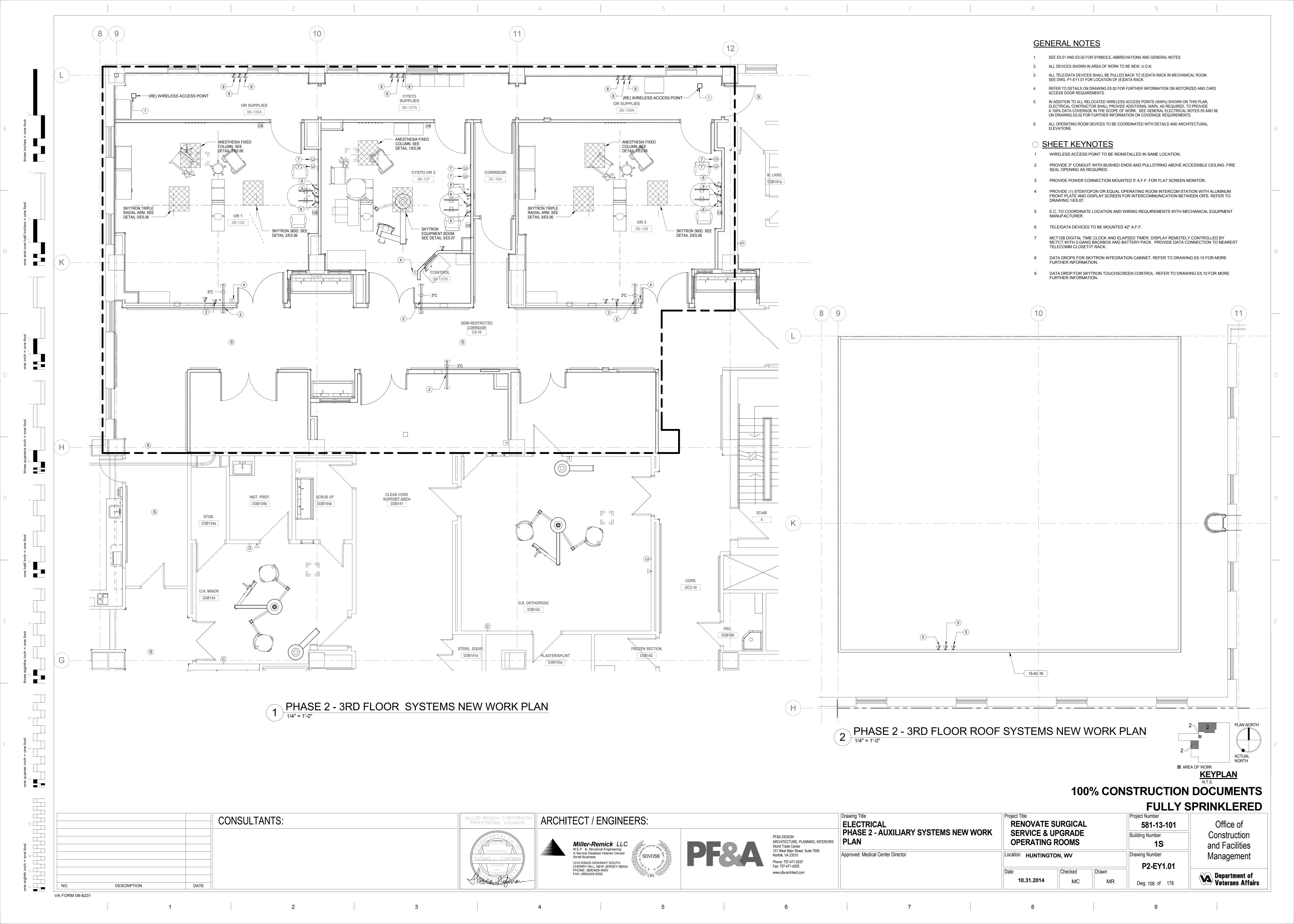


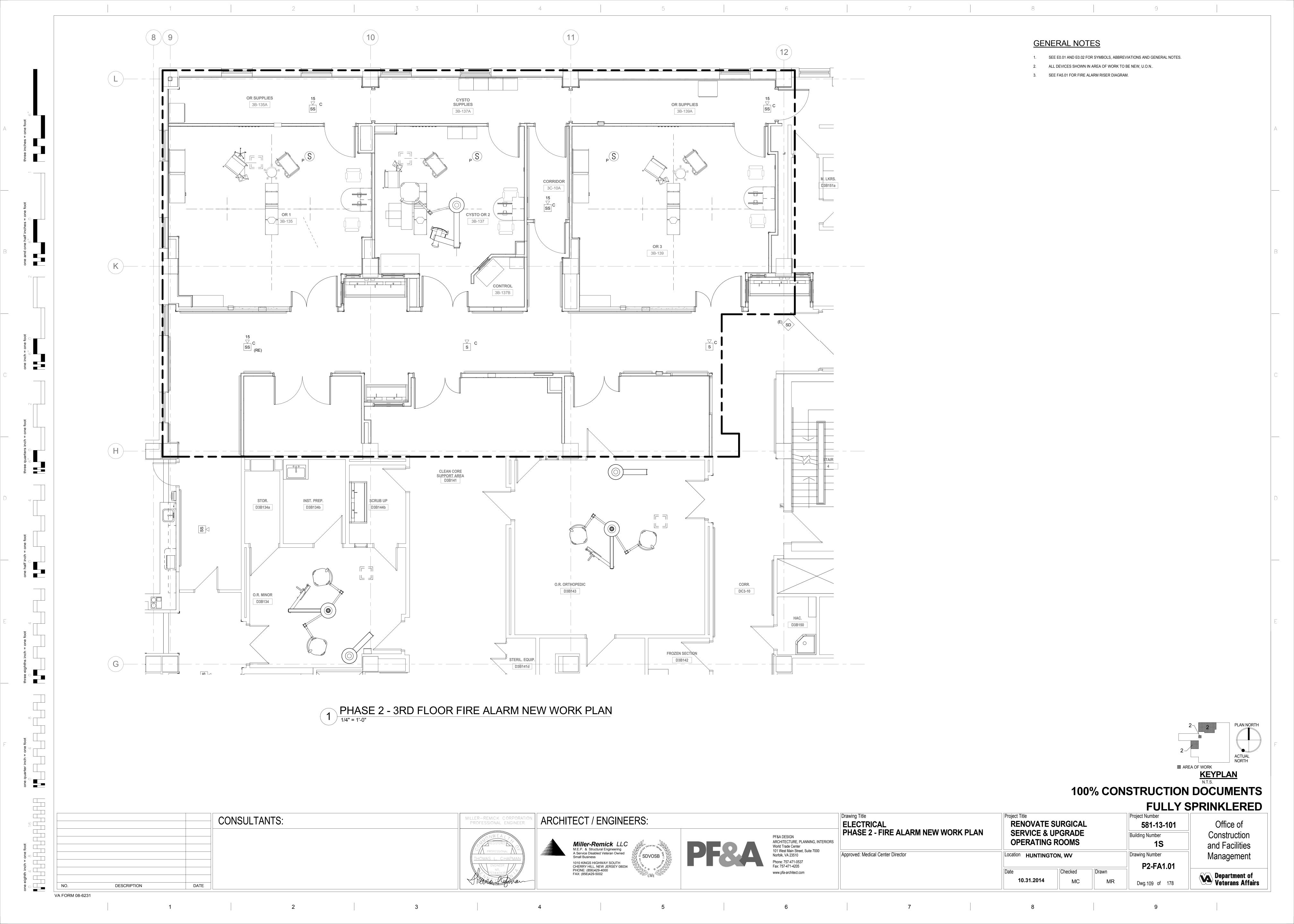


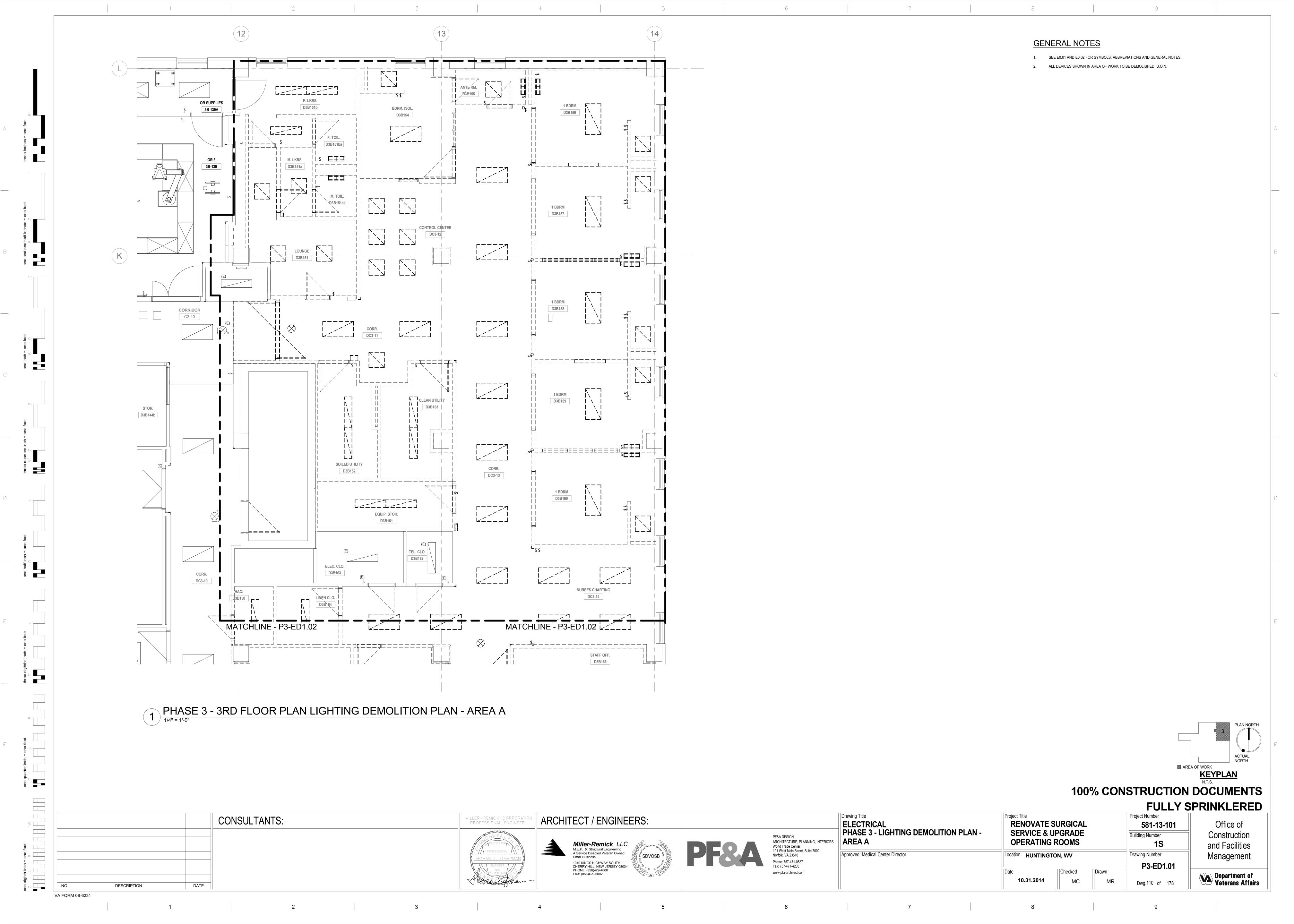






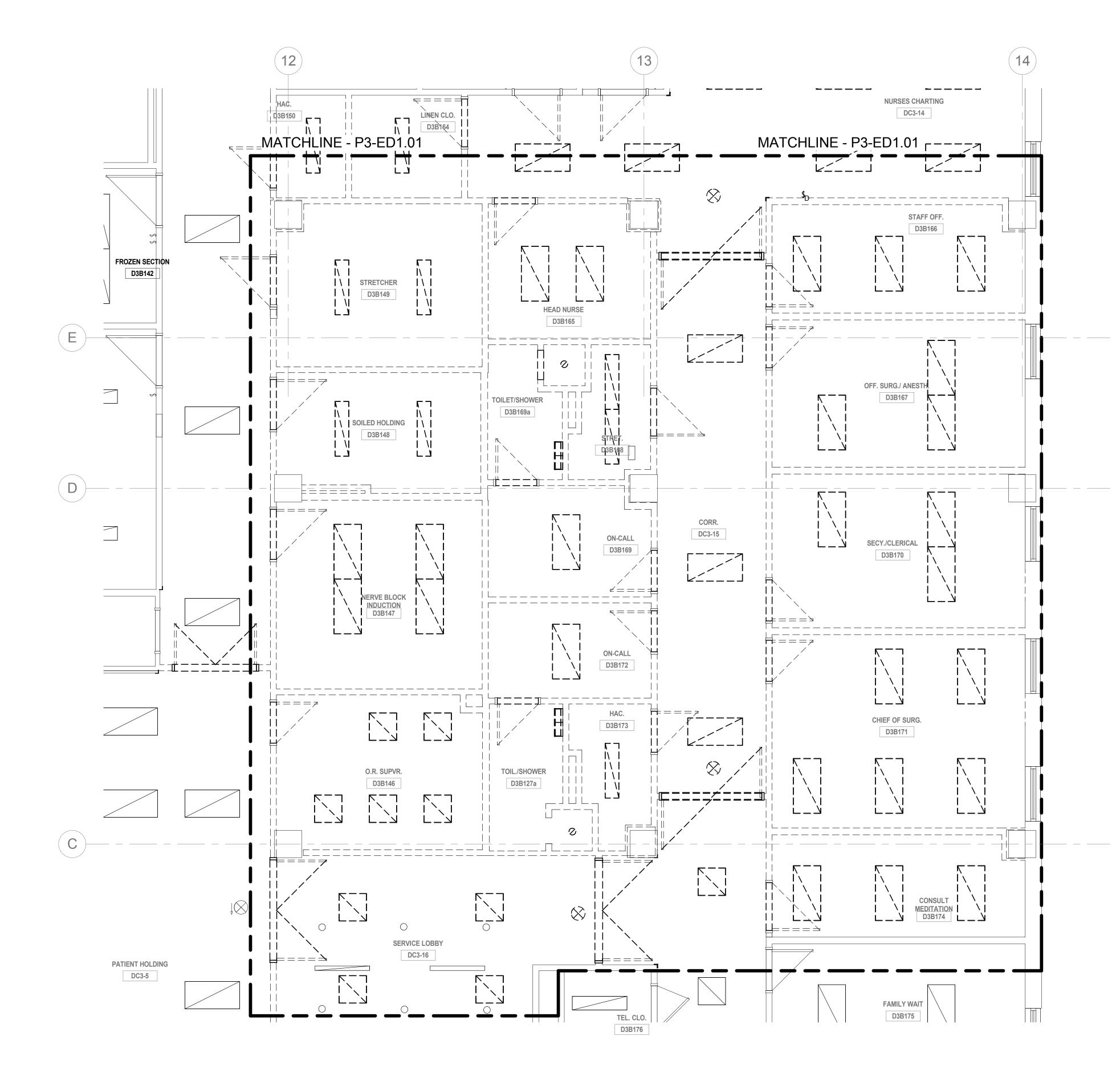




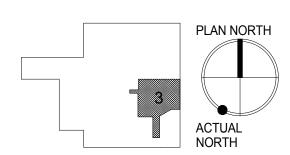


GENERAL NOTES

- 1. SEE E0.01 AND E0.02 FOR SYMBOLS, ABBREVIATIONS AND GENERAL NOTES.
- 2. ALL DEVICES SHOWN IN AREA OF WORK TO BE DEMOLISHED, U.O.N.



1 PHASE 3 - 3RD FLOOR PLAN LIGHTING DEMOLITION PLAN - AREA B



KEYPLAN N.T.S.

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	CONSULTANTS:	MILLER-REMICK CORPORATION PROFESSIONAL ENGINEER	ARCHITECT / ENGINEERS:		Drawing Title ELECTRICAL PHASE 3 - LIGHTING DEMOLITION PLAN - AREA B	Project Title RENOVATE SURGICAL	Project Number 581-13-101	Office of
		REGISTERED REGISTERED	Miller-Remick LLC MER & Structural Engineering	PF&A DESIGN ARCHITECTURE, PLANNING, INTERIORS World Trade Center 101 West Main Street, Suite 7000 Norfolk, VA 23510 Phone: 757-471-0537 Fax: 757-471-4205		SERVICE & UPGRADE OPERATING ROOMS	Building Number 1S	Construction and Facilities
		THOMAS L. CHAPMAN ENGINEER	A Service Disabled Veteran Owned Small Business 1010 KINGS HIGHWAY SOUTH CHERRY HILL, NEW JERSEY 08034		Approved: Medical Center Director	Location HUNTINGTON, WV	Drawing Number P3-ED1.02	Management
NO. DESCRIPTION	DATE	PEO44043R	PHONE: (856)429-4000 FAX: (856)429-5002	www.pfa-architect.com		Date Checked Draw MC Draw	wn MR Dwg.111 of 178	Department of Veterans Affairs
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